San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-693-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-694-4

EXPIRATION DATE: 02/28/2006

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SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-695-4

EXPIRATION DATE: 02/28/2006

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SECTION: NW25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
21,822 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-696-4

EXPIRATION DATE: 02/28/2006

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SECTION: NW25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
21,822 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-698-4

EXPIRATION DATE: 02/28/2006

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SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
8,652 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-699-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-700-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
150,318 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-701-9 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
75,138 GALLON FIXED ROOF STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222 (26C EFFLUENT PLANT)

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit
14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-702-4

EXPIRATION DATE: 02/28/2006

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SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
150,318 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-703-8 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
42,294 GALLON FIXED ROOF STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222 (26C EFFLUENT PLANT)

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit
14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-704-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
124,740 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-705-8

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
83,160 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-706-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
212,100 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-707-8

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
83,160 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-708-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,386 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-709-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-710-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
6,384 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-713-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-714-4

EXPIRATION DATE: 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-715-4

EXPIRATION DATE: 02/28/2006

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SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-716-4

EXPIRATION DATE: 02/28/2006

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SECTION: SW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-717-4

EXPIRATION DATE: 02/28/2006

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SECTION: SW25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
21,882 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-839-6

EXPIRATION DATE: 02/28/2006

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EQUIPMENT DESCRIPTION:
20 UNCONTROLLED CYCLIC WELLS

PERMIT UNIT REQUIREMENTS

1. All wells authorized by this permit to operate shall be located more than 1000 feet from an existing well vent vapor recovery system operated by the company. [District Rule 4401, 4.5.1] Federally Enforceable Through Title V Permit
2. Permittee shall maintain a current well roster of all uncontrolled cyclic wells, and such roster shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
4. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
5. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit
6. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit
8. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit
9. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit
10. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit
11. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit
12. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit
13. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit
14. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit
15. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit
16. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit
17. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit
18. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

20. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

22. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

23. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

24. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

25. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

26. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

27. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

28. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

29. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

31. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

32. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

33. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

34. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

35. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-921-5

EXPIRATION DATE: 02/28/2006

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EQUIPMENT DESCRIPTION:
158 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
4. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
6. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

7. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit
8. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit
9. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit
10. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit
11. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit
12. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit
13. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit
14. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit
15. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit
16. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit
17. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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18. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

19. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

20. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

21. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

23. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

25. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

26. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

27. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

28. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

30. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

31. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

32. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

33. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

34. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

35. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

36. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-923-6 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2,000 BARREL DRAIN TANK, T-905C, WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-222, AT SECTION 26C OIL PLANT

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit
14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-934-2 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS

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PERMIT UNIT REQUIREMENTS

1. {649} Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
2. {650} Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. {652} The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. {654} Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
6. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
7. {657} Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
8. {658} Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
9. {659} Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, Vmax, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
10. {660} The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.

11. {661} Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit
12. If flare is not operating, gas shall not be vented to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Gas flow rate to flare, except pilot fuel, shall not exceed 140,400 dscf per day. [District NSR Rule]
14. Gas flow rate to flare, except pilot fuel, shall not exceed 2,500,800 dscf per year. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Pilot fuel gas flow rate shall not exceed 7,200 dscf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Concentration of sulfur (as H2S) in gas flared shall not exceed 30,000 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Permittee shall determine the moisture content of flared gas during an actual flaring episode at least once each calendar quarter in which a flare episode occurs. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H2S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM-10: 6.4 lb/mmscf; NOx (as NO2): 54.4 lb/mmscf; VOC: 50.4 lb/mmscf; or CO: 296.0 lb/mmscf. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Emission rate from pilot gas shall not exceed any of the following: NOx (as NO2) - 68.0 lb/MMscf, VOC - 63.0 lb/MMscf, CO - 370.0 lb/MMscf, PM10 - 8.0 lb/MMscf, or SOx - 2.85 lb/MMscf. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain daily and annual records of pilot fuel gas flow volumes, daily and annual records of wet & calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-935-10

EXPIRATION DATE: 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,156 BBL FIXED ROOF CONSTANT LEVEL FWKO TANK (T-13) VENTED TO VAPOR RECOVERY SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-936-10 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

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EQUIPMENT DESCRIPTION:
12,086 BBL FIXED ROOF CONSTANT LEVEL FWKO TANK (T-25) VENTED TO VAPOR RECOVERY SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-938-7

EXPIRATION DATE: 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
380 BBL CONSTANT LEVEL CRUDE OIL SURGE TANK (T-18) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit
10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-940-4 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

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EQUIPMENT DESCRIPTION:
16,000 GALLON WEMCO M-3 TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 4623, 5.3.1 and NSR] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
4. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
8. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall keep a record of liquids stored in each container, storage temperature, the Reid vapor pressure and daily throughput of such liquids. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Operator shall determine the true vapor pressure of the petroleum liquid stored in the tank at least once per year, annually during summer and whenever there is a change in the source or type of petroleum entering the tank. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rules 2520, 9.3.2 and 4623, 6.2.2] Federally Enforceable Through Title V Permit

14. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3] Federally Enforceable Through Title V Permit

15. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

16. The efficiency of any VOC destruction device shall be measured by USEPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. True vapor pressure (TVP) of liquids processed shall not exceed 5.0 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

20. The liquid processed in this WEMCO unit shall be at constant level. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-941-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE 8 **TOWNSHIP:** 30S **RANGE:** 22E

DRAFT

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW NOX BURNER WITH FGR

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.05 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2, 4306, and 4320] Federally Enforceable Through Title V Permit
8. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

14. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

38. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-949-2

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.9.4, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
6. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
7. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
8. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.9.2] Federally Enforceable Through Title V Permit
9. Emissions from this engine shall not exceed any of the following limits: 3.7 g-NOx/bhp-hr , 0.1 g-PM10/bhp-hr, 0.5 g-CO/bhp-hr, or 1.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed 0.1 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [13 CCR 2423 and 17 CCR 93115]
11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.9.3] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

12. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.9 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

14. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4702, 6.2.3 and 2520, 9.4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

20. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

21. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

22. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-950-1 **EXPIRATION DATE:** 02/28/2006

SECTION: SW 31 **TOWNSHIP:** 29S **RANGE:** 22E

DRAFT

EQUIPMENT DESCRIPTION:
UP TO 14' O.D. X 61' (1670 BBL) CRUDE OIL INLET GAS SEPARATOR VESSEL V-2A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1128-128

PERMIT UNIT REQUIREMENTS

1. Vapors from separator vessel V-2A shall be routed to casing collection system S-1128-128. [District Rule 2201] Federally Enforceable Through Title V Permit
2. VOC content of total organic compounds in gas processed by separator vessel V-2A shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall determine VOC content of total organic compounds in gas within 60-days of startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emissions rate, calculated using EPA Publication 453/R-95-017," Table 2-4 Oil and Gas Operations Average Emission Factors, from the total number of components in vapor service dedicated to separator vessel V-2A shall not exceed 7.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The fugitive VOC emission limit listed above does not include components in liquid service, or existing production handling and flow measurement facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All vapor service piping, fittings, and valves dedicated to separator vessel V-2A or associated with the vessel's vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit
7. All vapor service piping, fittings, and valves dedicated to separator vessel V-2A or associated with the vessel's vapor recovery system shall be maintained in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rules 220] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate records of VOC content of total organic compounds in gas and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-951-3 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

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PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.9.4, 17 CCR 93115, 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
6. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
7. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
8. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.9.2] Federally Enforceable Through Title V Permit
9. Emissions from this engine shall not exceed any of the following limits: 3.7 g-NOx/bhp-hr , 0.5 g-CO/bhp-hr, or 1.14 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed 0.1 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.9.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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12. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.9 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

14. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4702, 6.2.3 and 2520, 9.4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

20. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

21. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

22. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-952-2 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
30.0 MMBTU/HR NATURAL GAS, PROPANE, OR BUTANE-FIRED STRUTHERS STEAM GENERATOR S/N 75/76-37153-2 WITH NORTH AMERICAN BURNER MODEL 4211-30-LE AND O2 CONTROLLER AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (ALSO PERMITTED AS S-2010-200 IN LOW SS)

PERMIT UNIT REQUIREMENTS

1. Permittee shall comply with all notification and recordkeeping requirements of 40 CFR 60.7 a (1)(3) and (b). [District Rule 4001] Federally Enforceable Through Title V Permit
2. This steam generator is authorized to operate at CUSA's light oil western stationary source (LOWSS) as permit S-2010-200 or CUSA's heavy oil western stationary source as permit S-1128-952. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The District shall be notified at least 7 days prior to each transfer between District approved locations, giving the exact location of the move. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Production from wells thermally enhanced by this steam generator shall be routed only to existing vapor controlled tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Total sulfur content of fuel combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201and 4406] Federally Enforceable Through Title V Permit
6. Source testing for NOx and CO for each approved fuel shall be conducted within 60 days of first firing on fuel. [District Rule 4306] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

12. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit

15. Except during startup and shutdown emission rates shall not exceed any of the following: PM10: 0.0076 lb/MMBTU, NOx (as NO2): 12 ppmv @ 3% O2 or 0.014 lb/MMBTU, VOC: 0.0055 lb/MMBTU, or CO: 50 ppmv @ 3% O2. [District NSR Rule and District Rule 4306] Federally Enforceable Through Title V Permit

16. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit

17. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

26. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

32. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

34. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

36. Unit shall not be located within 1000 ft of a school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit

37. Formerly S-1128-927.

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-974-3 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-975-3 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-976-3 **EXPIRATION DATE:** 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-977-3 **EXPIRATION DATE:** 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-978-1

EXPIRATION DATE: 02/28/2006

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SECTION: SW 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
250 HORSEPOWER CUMMINS MODEL QSB7-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (31X CONTROL ROOM, CYMRIC OILFIELD)

PERMIT UNIT REQUIREMENTS

1. This engine shall be EPA/CARB TIER-3 certified. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115, CH&SC 41701.6, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
8. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
9. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. Emissions from this IC engine shall not exceed any of the following limits: 2.83 g-NOx/bhp-hr, 0.746 g-CO/bhp-hr, or 0.149 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Emissions from this IC engine shall not exceed 0.082 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

14. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rule 4702, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

20. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

21. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

22. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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ATTACHMENT B

Existing Title V Operating Permit

San Joaquin Valley
Air Pollution Control District

FACILITY: S-1128-0-1 **EXPIRATION DATE:** 02/28/2006

FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (7/21/94). [District Rule 2010, 3.0 and 4.0; 2020; and County Rule 201 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) (Permits Required) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.6.1] Federally Enforceable Through Title V Permit

11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520(6/15/95) [District Rules 2520, 9.6.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit . [District Rule 2520, 9.8] Federally Enforceable Through Title V Permit

13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.9.2] Federally Enforceable Through Title V Permit

14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.9.3] Federally Enforceable Through Title V Permit

15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.9.4] Federally Enforceable Through Title V Permit

16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.9.5] Federally Enforceable Through Title V Permit

17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.10] Federally Enforceable Through Title V Permit

18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.14.2.1] Federally Enforceable Through Title V Permit

19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.14.2.2] Federally Enforceable Through Title V Permit

20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.14.2.3] Federally Enforceable Through Title V Permit

21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.14.2.4] Federally Enforceable Through Title V Permit

22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (12/17/92), by using EPA method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

23. No person shall supply, sell, solicit or apply any architectural coating, except specialty coatings, that contains more than 250 grams of VOC per liter of coating (less water and exempt compounds, and excluding any colorant added to tint bases), or manufacture, blend, or repackage such coating with more than 250 grams of VOC per liter (less water and exempt compounds, and excluding any colorant added to tint bases) for use within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

24. No person shall apply, sell, solicit, or offer for sale any specialty architectural coating listed in the Table of Standards (District Rule 4601, Table 1 (12/17/92)), nor manufacture, blend, or repackage such coating for use within the District, which contains VOCs (less water and exempt compounds, excluding any colorant added to tint bases) in excess of the specified limits listed in Table 1 of Rule 4601 (12/17/92). [District Rule 4601, 5.2] Federally Enforceable Through Title V Permit

25. All VOC-containing materials shall be stored in closed containers when not in use. In use includes, but is not limited to: being accessed, filled, emptied, maintained or repaired. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

26. A person shall not use VOCs for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used. [District Rule 4601, 5.5] Federally Enforceable Through Title V Permit

27. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.2 (12/17/92). [District Rule 4601, 6.1 and 6.2] Federally Enforceable Through Title V Permit

28. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official [District Rule 2520, 9.14.1and 10.0] Federally Enforceable Through Title V Permit

29. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit

30. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit

31. Disturbances of soil related to any construction, demolition, excavation, extraction, or water mining activities shall comply with the requirements for fugitive dust control in SJVUAPCD District Rule 8020 (4/25/96) unless specifically exempted under section 4 of Rule 8020 (4/25/96). [District Rule 8020] Federally Enforceable Through Title V Permit

32. Outdoor handling and storage of any bulk material which emits dust shall comply with the requirements of SJVUAPCD Rule 8030 (4/25/96), unless specifically exempted under section 4 of Rule 8030 (4/25/96). [District Rule 8030] Federally Enforceable Through Title V Permit

33. Any paved road over 3 miles in length, and any unpaved roads over half a mile in length, constructed after December 10, 1993 shall use the design criteria and dust control measures of, and comply with the administrative requirements of, SJVUAPCD Rule 8060 (4/25/96) unless specifically exempted under section 4 of Rule 8060 (4/25/96). [District Rule 8060] Federally Enforceable Through Title V Permit

34. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

35. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.17] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

36. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit

37. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permit shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), Rules 201, 202, 203, 204, 208, and 209 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin), Rule 410.1 (Kern), and Rule 423 (Kern, Fresno, Stanislaus, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92);2070 , section 7.0 (12/17/92); 2080 (12/17/92); 4101 (12/17/92); 4601, sections 5.1, 5.2, 5.4, 5.5, 6.1, and 6.2 (12/17/92); 8020 (4/25/96); 8030 (4/25/96); 8060 (4/25/96); A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

41. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit

42. For vapor recovery systems connected to tanks with pressure relief valves, operator shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed pressure relief valve setting. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

43. For tanks equipped with pressure relief valves, operator shall inspect pressure relief valves for fugitive leaks annually in accordance with EPA Method 21, with the instrument calibrated with methane. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

44. Operator shall maintain accurate monthly records of Gas-to-Oil Ratio (GOR) and API gravity of liquids produced showing that the facility exclusively processes, stores, or transfers black oil (as defined in 40 CFR 63.761). [40 CFR 63.10(b)] Federally Enforceable Through Title V Permit

45. On April 25, 2001, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days of the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

46. All permits for facilities #S-1128, S-1129, S-1141, S-1549, and S-2592 are included in ChevronTexaco Inc.'s Heavy Oil Western stationary source. [District Rule 2201]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-4-32 **EXPIRATION DATE:** 02/28/2006

SECTION: NE01 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43009-74 WITH FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 01 (NE,NW,SE,SW quarters), T30S, R21E; and Section 36 (SW quarter), T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 2.46 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Flue gas recirculation shall be utilized, as needed, in conjunction with low NOx burner to maintain ongoing compliance with permitted emission limits [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed any of the following limits: 0.007 lb-SOx/MMBtu, 0.0068 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 31 ppmvd @ 3% O2 or 0.023 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
11. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 34.5 lb-CO/day, and 12,593 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

23. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

35. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

42. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77- 13] Federally Enforceable Through Title V Permit

43. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

44. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Permittee shall continue to operate the vapor recovery system installed on the casing heads of oil wells in Sec 19, T28S, R21E on the Hill Anderson Lease in Lost Hills. Source tests shall be performed on a semi- annual basis to establish the rate of non-methane hydrocarbon recovery. The rate shall be no lower than 427 lbs/day. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

46. Permittee shall undertake a road paving program which will result in the paving of 0.6 miles of currently unpaved road in Sec 35, T30S, R22E (near the project sites). Permittee shall submit quarterly progress reports to the District. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

47. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

48. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

49. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-5-30 **EXPIRATION DATE:** 02/28/2006

SECTION: NE01 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #51 DIS# 43005-74 WITH NORTH AMERICAN GLE LOW-NOX BURNER, FGR, BLOWER MOTOR AND VARIABLE SPEED DRIVE (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 01 (NE,NW,SE,SW quarters), T30S, R21E; and Section 36 (SW quarter), T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 [District Rule 1081] Federally Enforceable Through Title V Permit
4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
5. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
6. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
7. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4084, D4468, D6667, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed any of the following: PM10: 0.068 lb/MMBtu, SOx (as SO2): 0.007 lb/MMBtu, or VOC: 0.011 lb/MMBtu. [District Rule NSR Rule]

17. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.0182 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.023 lb/MMBtu or 31.8 ppmvd @ 3% O2. [District Rules 4305 and 4306]

18. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305 and 4306]

19. During start-up and shutdown periods, emission rates shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201]

20. Emissions shall not exceed either of the following limits: 54.0 lb-NOx/day and 9,965 lb-NOx/year, or 34.5 lb-CO/day and 12,593 lb-CO/year. [District Rule 2201]

21. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

22. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

23. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081]

26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - EPA Method 6 or ARB Method 100 and EPA Method 19, and fuel gas sulfur content - ASTM D 1072, D 4084, D4468, D6667, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1081, 4305, and 4306]

28. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]

29. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306]

30. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]

31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305]

32. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.3.2]

33. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. As required by PSD permit SJ 77-13 when using fuel oil, the owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

37. As required by PSD permit SJ 77-13 when using fuel oil, permittee shall undertake a road paving program which will result in the paving of 0.6 miles of currently unpaved road in Sec 35, T30S, R22E (near the project sites). Permittee shall submit quarterly progress reports to the District. [PSD SJ 77-13] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-6-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-1-26C, DIS# 43011-74) WITH SO2 SCRUBBER

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed PM10: 0.037 lb/MMBtu, SOx (as SO2): 0.050 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu @3% O2, VOC: 0.003 lb/MMBtu, and CO: 0.021 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-7-4 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #1

PERMIT UNIT REQUIREMENTS

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
2. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

11. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Emission rates shall not exceed PM10: 2.8 lb/day, NOx (as NO2): 20.2 lb/day, VOC: 1.1 lb/day and CO: 4.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rule 4305] Federally Enforceable Through Title V Permit

20. Unit shall be tuned at least once each calendar year in which it operates by a qualified technician in accordance with Rule 4304. [District Rule 4305] Federally Enforceable Through Title V Permit

21. Units S-1128-7, -8, and -302 shall be equipped with a master fuel flow meter. Annual fuel use for each unit shall be calculated based on hours of operation of each unit and total fuel use from master meter. [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

22. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

24. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

25. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

26. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

27. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

28. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit

29. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Stack gas oxygen for source test purposes shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit

31. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

32. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-8-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #2 WITH CLEAVER BROOKS MODEL #CB-700-200-15 LOW NOX BURNER

PERMIT UNIT REQUIREMENTS

1. Units S-1128-7, -8, and -302 shall be equipped with a master fuel flow meter. Annual fuel use for each unit shall be calculated based on hours of operation of each unit and total fuel use from master meter. [District Rules 4306 and NSR] Federally Enforceable Through Title V Permit
2. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 4305] Federally Enforceable Through Title V Permit
3. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
4. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit
5. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Emission rates shall not exceed any of the following: SOX (as SO2): 0.00285 lb/MMBtu; PM10: 0.0139 lb/MMBtu; or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4201, 3.1, 4301, 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

9. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, or CO: 0.0824 lb/MMBtu or 112 ppmvd @ 3% O2. [District Rules 2201, 2520, 9.3.2, 4201, 3.1, 4301, 5.2, 5.3, and 5.5, 4305 and 4306] Federally Enforceable Through Title V Permit

10. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rule 4306] Federally Enforceable Through Title V Permit

11. During start-up and shutdown periods emissions from the boiler shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.0824 lb-CO/MMBtu. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

12. Maximum emissions from the boiler, including start-up and shutdown, shall not exceed any of the following limits: 20.2 lb-NOx/day, 1080 lb-NOx/yr, 16.6 lb-CO/day, and 2472 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

14. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

16. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

18. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407; District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules NSR and 4406] Federally Enforceable Through Title V Permit

24. Permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 4306 and NSR] Federally Enforceable Through Title V Permit

25. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

27. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

28. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2520. 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit

29. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

35. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

36. Stack gas oxygen for source test purposes shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-11-17 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-2-26C, DIS# 43015-78) WITH SO2 SCRUBBER

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed PM10: 0.037 lb/MMBtu, SOx (as SO2): 0.050 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu @3% O2, VOC: 0.003 lb/MMBtu, and CO: 0.021 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-14-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-1

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-15-36 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-1-2F, DIS# 43002-81) WITH SO2 SCRUBBER AND LOW PRESSURE FUEL INDUCED RECIRCULATION - TAFT (GROUP II)

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from the unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This unit shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4306] Federally Enforceable Through Title V Permit
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Low pressure fuel induced recirculation system shall be operated at all times. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Emission rates shall not exceed any of the following: PM10 - 0.050 lb/MMBtu, SOx (as SO2) - 0.324 lb/MMBtu, NOx (as NO2) - 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, VOC - 0.003 lb/MMBtu, or CO: 0.021 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305] Federally Enforceable Through Title V Permit

26. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

28. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

29. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

30. Upon recommencing operation, source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

31. Upon recommencing operation, source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

32. Upon recommencing operation, if permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

33. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and SOx (lb/MMBtu) - EPA Method 6 or ARB Method 100 and EPA Method 19, stack gas moisture content - EPA Method 4. [District Rules 1081, 4305] Federally Enforceable Through Title V Permit

39. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

40. Permittee shall keep daily records of the sulfur content of the vapor recovery gas, amount of natural gas combusted, and the amount of vapor recovery gas combusted. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

42. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

43. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

44. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

45. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

46. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

47. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

48. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

49. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

50. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

51. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

52. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

53. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

54. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

55. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

56. The performance tests shall be conducted for the equipment designated below: for SO2 the units designated in condition 41; for NOx the units designated in condition 43. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

57. All correspondence shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-16-25 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 LOW NOX BURNER AND FGR (#50-2 DIS #43003-81)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. Flue gas recirculation system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents, or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
7. Emissions from the steam generator shall not exceed any of the following limits: 0.006 lb-SOx/MMBtu, 0.007 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
11. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

16. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2]

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

35. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

41. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

42. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

43. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61and all other applicable Federal, State and local regulations. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

44. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

45. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

46. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

47. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

48. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

49. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

50. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

51. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average) for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

52. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

53. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 61; for NOx the units designated in condition 63. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

54. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-17-28 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-3 DIS# 43004-81 WITH FGR

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4306] Federally Enforceable Through Title V Permit
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. Flue gas recirculation system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Emission rates shall not exceed PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.006 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.022 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

21. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

22. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

24. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2520, 9.3.2, and 4305] Federally Enforceable Through Title V Permit

25. If the NOx or CO concentrations, as measured by the portable analyzer/Compu-NOx emissions analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

26. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

28. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

30. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

31. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

32. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

33. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

34. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

35. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

37. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

38. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

39. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

40. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

41. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

42. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

43. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

44. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 42; for NOx the units designated in condition 44. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

45. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-18-28 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-4-2F WITH SO2 SCRUBBER, NORTH AMERICAN GLE MAGNA-FLAME ULTRA-LOW NOX BURNER AND FGR - TAFT (GROUP II)

PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter and TEOR gas volume flowmeter. [District Rules 2201, 4305,5.4, and 4306, 5.4] Federally Enforceable Through Title V Permit
2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
4. If installed, low pressure fuel induced recirculation system shall be operated at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. During a "shakedown" period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, NOx emission rates shall not exceed 30 ppmvd @ 3% O2 or 0.036 lb/MMBtu. The shakedown period shall be concluded prior to the applicable Rule 4306 compliance deadline selected for this unit. Permittee shall maintain a record of the date of initial operation and shall make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Emission rates shall not exceed any of the following: SOX (as SO2): 0.324 lb/MMBtu; PM10: 0.050 lb/MMBtu; or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4201, 3.1, 4301, 5.1 and 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

13. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 50 ppmvd @ 3% O2. [District Rules 2201, 2520, 9.3.2, 4201, 3.1, 4301, 5.2, 5.3, and 5.5, 4305 and 4306] Federally Enforceable Through Title V Permit

14. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

15. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54 lb-NOx/day, 9,855 lb-NOx/yr, 55.5 lb-CO/day, and 20,258 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

17. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules NSR, 4305 and 4306] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

21. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Compliance with the sulfur emission limit requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

25. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; 4306, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rules 2520, 9.3.2 and 4801] Federally Enforceable Through Title V Permit

30. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

32. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2520. 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

35. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

36. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

41. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.4.2; 4305, 6.3.2 and 4306, 6.3.2] Federally Enforceable Through Title V Permit

42. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

43. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, SOx (lb/MMBtu) - EPA Method 6 or ARB Method 100 and EPA Method 19, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, and stack gas moisture content - EPA Method 4. [District Rules 1081, 4305] Federally Enforceable Through Title V Permit

44. Permittee shall keep daily records of the sulfur content of the vapor recovery gas, amount of natural gas combusted, and the amount of vapor recovery gas combusted. [District NSR Rule] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

47. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

49. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

50. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

51. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

52. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

53. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

54. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

55. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

56. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

57. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. Performance tests of these units for SO2 shall be conducted as described below. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

59. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. Performance tests of these units for NOx shall be conducted as described below. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

60. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

61. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

62. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-19-24 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (#50-5 DIS #43006-81) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.006 lb-SOx/MMBtu, 0.007 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
7. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
9. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22]
10. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

39. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

40. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

41. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61and all other applicable Federal, State and local regulations. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

42. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

43. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

44. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

45. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

47. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

48. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

49. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average) for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

50. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

51. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 60; for NOx the units designated in condition 62. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

52. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-21-33 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 90, DIS# 43010-80) WITH A NORTH AMERICAN GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 36 (SE), T32S, 23E; Section 01 (NE,NW,SE,SW quarters), T30S, R21E; and Section 36 (SW quarter), T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Steam generator may be operated with PCL Industries Inc. diffuser plate (or equivalent District-authorized design). After changing burner diffuser plate, stack concentration of NOx (as NO2), CO, and O2 shall be measured by a District approved portable analyzer. Changes in burner diffuser plates and subsequent emission measurements shall be recorded in a contemporaneous log. [District Rule 2520] Federally Enforceable Through Title V Permit
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 [District Rule 1081] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
6. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
7. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4084, D4468, D6667, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

17. Emission rates shall not exceed PM10: 0.014 lb/MMBtu, and VOC: 0.003 lb/MMBtu [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

18. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.0182 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.021 lb/MMBtu or 29 ppmvd @ 3% O2. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. During start-up and shutdown periods, emission rates shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Emissions shall not exceed either of the following limits: 54.0 lb-NOx/day and 9,965 lb-NOx/year, or 31.5 lb-CO/day and 11,498 lb-CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 6.3.1, and 4306, 6.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - EPA Method 6 or ARB Method 100 and EPA Method 19, and fuel gas sulfur content - ASTM D 1072, D 4084, D4468, D6667, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rules 1081, 4305, and 4306] Federally Enforceable Through Title V Permit

27. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

28. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

30. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305] Federally Enforceable Through Title V Permit

31. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

35. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

36. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

37. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

38. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

39. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

40. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

41. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

42. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

43. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

44. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

45. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

46. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

47. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

48. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-32] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-25-44 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 62, DIS# 41764-06) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
4. Permittee shall maintain 0.5 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This generator is approved to operate at the following locations: Sec. 31, T29S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 10.5 ppmvd NOx @ 3% O2 or 0.0128 lb-NOx/MMBtu or 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.036 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 27.6 lb-NOx/day, 7,737 lb-NOx/yr, 52.2 lb-CO/day, and 12,693 lb-CO/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 2201, 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

13. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

15. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, D4468, D6228, and double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Operator shall provide an annual fuel analysis to the District. [District Rule 4320]

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Permittee shall maintain a record of the duration of each startup and shutdown of this unit. [District Rule 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

41. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

42. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

43. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

44. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

45. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-26-29 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 63, DIS# 43003-79) WITH FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Steam generator may be operated with North American perforated or solid "S" diffuser plates, four variations of North American solid "S" diffuser plate, or three types of North American Company prototype diffuser plates. After changing burner diffuser plate, stack concentration of NOx (as NO2), CO, and O2 shall be measured by a District approved portable analyzer. Changes in burner diffuser plates and subsequent emission measurements shall be recorded in a contemporaneous log. [District Rule 2520 section 6.4.2] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
6. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
7. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

12. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. Permittee shall maintain 0.5 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. This generator is approved to operate at the following locations: Sec. 31, T29S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District NSR Rule] Federally Enforceable Through Title V Permit

20. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Emission rates shall not exceed PM10: 0.038 lb/MMBtu, SOx (as SO2): 0.324 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, and CO: 0.021 lb/MMBtu or 29 ppmv @ 3% O2. [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

22. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2520, 9.3.2, and 4305] Federally Enforceable Through Title V Permit

24. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

26. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

27. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

28. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. When incinerating vapor recovery gas, testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. The permittee shall keep daily records of the amount of natural gas and vapor recovery gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

36. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, and fuel gas sulfur content - ASTM D3246. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

37. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

38. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

39. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

40. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

41. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

42. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

43. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

44. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

45. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93721. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-27-30 **EXPIRATION DATE:** 02/28/2006

SECTION: 07 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #53 DIS# 43010-78 WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.3 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Approved locations for this equipment: Sec. 7, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; SE/4 of Sec. 35, T29S/21E; and SE/4 of Sec. 8, T30S/R22E. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. The sulfur content of fuel combusted shall not exceed 2.46 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Flue gas recirculation shall be utilized, as needed, in conjunction with low NOx burner to maintain ongoing compliance with permitted emission limits [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the steam generator shall not exceed any of the following limits: 0.007 lb-SOx/MMBtu, 0.0068 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
9. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 31 ppmvd @ 3% O2 or 0.023 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
10. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 34.5 lb-CO/day, and 12,593 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

15. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

36. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

43. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-28-23 **EXPIRATION DATE:** 02/28/2006

SECTION: 07 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #52 DIS# 43014-78 WITH FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
2. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

11. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Permittee shall maintain 0.3 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Approved locations for this equipment: Sec. 7, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District NSR Rule] Federally Enforceable Through Title V Permit

19. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Unit shall be fired on PUC quality natural gas only. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Flue gas recirculation system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Gas fired emission rates shall not exceed PM10: 0.0068 lb/MMBtu, SOx (as SO2): 0.007 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, VOC: 0.011 lb/MMBtu, and CO: 0.023 lb/MMBtu. [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

23. Fuel gas sulfur content shall not exceed 0.004 lb/MMBtu (as sulfur). [District NSR Rule] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305] Federally Enforceable Through Title V Permit

25. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2520, 9.3.2, and 4305] Federally Enforceable Through Title V Permit

27. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

29. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

30. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

31. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

32. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

34. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

35. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-29-40 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 55, DIS# 41752-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, SHARED SO2 SCRUBBER WITH S-1128-30, -31, -32, -33, AND -34 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. Start-up: The period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Shutdown: The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. The duration of each start-up or shutdown event shall not exceed two hours. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lbs-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The permittee shall maintain daily and annual records of all start-up and shutdown occurences and durations. [District NSR Rule and Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. Operation shall include one gas/liquid knockout vessel. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with gas/liquid separator shall not exceed 1.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

29. VOC content of hydrocarbons in gas processed by gas/liquid separator shall not exceed 30%. [District NSR Rule] Federally Enforceable Through Title V Permit

30. VOC content of hydrocarbons in TEOR gas processed by gas/liquid separator shall be measured upon startup and annually thereafter. [District NSR Rule] Federally Enforceable Through Title V Permit

31. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

32. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

35. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

36. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

37. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

38. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

40. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

41. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

44. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

45. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

46. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

47. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

48. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

49. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

50. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

51. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

52. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

55. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

58. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

59. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

60. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

61. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

65. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

66. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

67. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

68. Records of VOC content of the hydrocarbons in the TEOR gas processed by gas/liquid separator shall be kept at the facility and made readily available for compliance inspection upon request for a period of 5 years. [District Rule 1070] Federally Enforceable Through Title V Permit

69. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

70. Compliance with permit conditions in the Title V permit shall be deemed compliant with the requirements of County Rules 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

71. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-30-39 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 56, DIS # 41753-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. Start-up: The period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Shutdown: The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. The duration of each start-up or shutdown event shall not exceed two hours. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The permittee shall maintain daily and annual records of all start-up and shutdown occurences and durations. [District NSR Rule and Rules 4305, 4306, and 2520, 9.4.2]

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

29. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

30. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

38. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

42. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

44. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

59. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

60. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

61. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

62. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

63. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

64. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

65. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

66. The sulfur content of the fuel oil shall be no greater than 1.1% by weight on an annual average basis and no greater than 1.38% by weight on a daily maximum average basis, as determined by ASTM Methods D115-68, D129-64, or D151-64, or equivalent methods approved by the EPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

67. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

68. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

69. Compliance with permit conditions in the Title V permit shall be deemed compliant with the requirements of County Rules 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

70. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-31-35 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 57, DIS# 41763-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. Start-up: The period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Shutdown: The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. The duration of each start-up or shutdown event shall not exceed two hours. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.133 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.133 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The permittee shall maintain daily and annual records of all start-up and shutdown occurences and durations. [District NSR Rule and Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

29. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

30. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

38. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

42. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

44. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

59. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

60. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

61. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

62. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

63. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

64. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93721. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

65. Records of VOC content of the hydrocarbons in the TEOR gas processed by gas/liquid separator shall be kept at the facility and made readily available for compliance inspection upon request for a period of 5 years. [District Rule 1070] Federally Enforceable Through Title V Permit

66. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. Compliance with permit conditions in the Title V permit shall be deemed compliant with the requirements of County Rules 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

68. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-32-40 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
ONE 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 58, DIS# 41751-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. Start-up: The period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Shutdown: The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. The duration of each start-up or shutdown event shall not exceed two hours. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The permittee shall maintain daily and annual records of all start-up and shutdown occurences and durations. [District NSR Rule and Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

29. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

30. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

38. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

42. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

44. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

59. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

60. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

61. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

65. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

66. Compliance with permit conditions in the Title V permit shall be deemed compliant with the requirements of County Rules 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-33-43 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 59, DIS# 41758-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. Start-up: The period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Shutdown: The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. The duration of each start-up or shutdown event shall not exceed two hours. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu; 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The permittee shall maintain daily and annual records of all start-up and shutdown occurences and durations. [District NSR Rule and Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

29. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

30. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

38. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

42. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

44. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

59. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

60. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

61. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

65. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

66. Compliance with permit conditions in the Title V permit shall be deemed compliant with the requirements of County Rules 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-34-43 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 60, DIS# 41759-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. Start-up: The period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Shutdown: The period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. The duration of each start-up or shutdown event shall not exceed two hours. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 2520, 9.5.2] Federally Enforceable Through Title V Permit

20. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. The permittee shall maintain daily and annual records of all start-up and shutdown occurences and durations. [District NSR Rule and Rules 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

29. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

30. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

31. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

34. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

36. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

38. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit

42. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit

44. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

47. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

59. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

60. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

61. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

65. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

66. Compliance with permit conditions in the Title V permit shall be deemed compliant with the requirements of County Rules 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-35-36 **EXPIRATION DATE:** 02/28/2006

SECTION: SW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 89) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 47 ppmvd @ 3% O2 or 0.035 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
6. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit
9. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 52.5 lb-CO/day, and 19,163 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

13. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

20. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

25. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

26. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

38. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

39. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

40. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

41. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

43. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

44. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

45. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

46. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

47. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

48. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

49. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

50. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

51. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

53. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-36-22 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Scrubber liquor pH shall be maintained between 6 and 8 and shall be continuously monitored and recorded during operation of this unit. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
8. Scrubber mist eliminator shall be properly cleaned and maintained per the recommendations of the manufacturer. Each occurrence of the cleaning and maintenance shall be recorded. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. The scrubber recirculation liquor liquid to gas ratio shall be recorded on a weekly basis. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
10. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District NSR Rule, and District Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

14. During the initial "shakedown" period emissions from the steam generator shall not exceed any of the following limits: 30 ppmvd NOx @ 3% O2 or 0.036 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and District Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

15. During a shakedown period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, NOx emission rate shall not exceed 30 ppmvd @ 3% O2 or 0.0.036 lb/MMBtu. The shakedown period shall be concluded prior to the applicable Rule 4306 compliance deadline selected for this unit. Permittee shall maintain a record of the date of initial operation and shall make such records readily available for District inspection upon request. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

16. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

18. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District NSR Rule and District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

20. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

29. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

30. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

31. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

32. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

33. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

34. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

35. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

37. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

38. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

39. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

40. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

41. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

42. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

43. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

44. Records of the scrubber liquor pH, occurrences of the cleaning and maintenance of the scrubber mist eliminator, and the scrubber liquid-to-gas ratio shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

45. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

48. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

49. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

50. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

51. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

52. Annual source testing shall be performed on one vapor recovery system consisting of 32 wells and on a second vapor recovery system on 3 wells to establish the efficiency of the vapor recovery system. The efficiency the 3-well system. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

53. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (2) 50 MMBtu/hr steam generators and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. (One of the 50 MMBtu/hr units is to be scrubbed for offset purposes.) Exhaust gases from the above units shall be ducted through operating scrubbers . [PSD SJ 77-29] Federally Enforceable Through Title V Permit

54. Permittee shall not discharge into the atmosphere SO2 in excess of 0.13 lb/MMBtu (maximum 2-hour average) for the steam generators designated in condition 38. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

55. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by USEPA. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

56. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generator and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in condition 40. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

57. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

58. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

59. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-38-23 **EXPIRATION DATE:** 02/28/2006

SECTION: 25 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (#94)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. This equipment is approved to be operated at the following locations: Sec. 25, T31S/R22E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S/R21E; SW/4 of Sec. 36, T29S/R21E; and the SE/4 of Sec. 35, T29S/R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Only PUC-quality natural gas or a combination of natural gas and vapor recovery gas shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The combined PM10 emission rate for steam generators S-1128-38 and -158 shall not exceed 21.0 lb/day whenever steam generator S-1128-38 is at any of the following locations: Sec. 26, T32S/R23E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S/R21E; SW/4 of Sec. 36, T29S/R21E; and the SE/4 of Sec. 35, T29S/R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain records of fuel type, quantity, and results of monthly vapor recovery gas sulfur analyses, and such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of the dates, locations, and daily fuel consumption for steam generators S-1128-38 and -158, and such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
11. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

13. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

14. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

17. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

24. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

29. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

31. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the TEOR/TVC gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

37. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

38. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

39. Permittee shall maintain daily records of volume of fuel gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration. [District NSR Rule] Federally Enforceable Through Title V Permit

40. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

41. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

45. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

46. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

47. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

48. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

49. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

50. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

51. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

52. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

53. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

54. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

55. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average) for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

56. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

57. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 44; for NOx the units designated in condition 46. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

58. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-44-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-3

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-45-9 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-4

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-48-26 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-4-26C) EQUIPPED WITH A NORTH AMERICAN MAGNAFLAME GLE ULTRA-LOW NOX BURNER WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, D 4468, D6667, or double GC for H2S and mercaptans. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

14. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

18. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

19. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

20. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

26. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - EPA Method 6 or ARB Method 100 and EPA Method 19. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

30. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

34. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

36. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

37. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

38. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

39. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

40. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District NSR Rule] Federally Enforceable Through Title V Permit

41. The permittee shall keep daily records of the amount of natural gas and vapor recovery gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

42. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

43. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

46. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

47. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77- 31] Federally Enforceable Through Title V Permit

48. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

49. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

50. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

51. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

52. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

53. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

54. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

55. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

56. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24- hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

57. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77- 31] Federally Enforceable Through Title V Permit

58. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

59. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 41; for NOx the units designated in condition 43. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

60. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-56-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-5-26C, DIS# 43303-80) WITH SO2 SCRUBBER

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed PM10: 0.036 lb/MMBtu, SOx (as SO2): 0.070 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu @3% O2, VOC: 0.003 lb/MMBtu, and CO: 0.021 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-57-15 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 LOW NOX BURNER AND FGR (#50-6 DIS #43012-81)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.087 lb-SOx/MMBtu, 0.045 lb-PM10/MMBtu, or 0.013 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
7. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
9. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
10. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4351, 6.3.1] Federally Enforceable Through Title V Permit

13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

14. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

20. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

22. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

31. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4351, 6.3.2] Federally Enforceable Through Title V Permit

32. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-58-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-7 DIS# 43013-81 WITH FGR

PERMIT UNIT REQUIREMENTS

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
2. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Flue gas recirculation system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Gas fired emission rates shall not exceed PM10: 0.045 lb/MMBtu, SOx (as SO2): 0.087 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, VOC: 0.013 lb/MMBtu, and CO: 0.025 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4305] Federally Enforceable Through Title V Permit

18. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

19. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

20. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

21. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

23. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

25. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers/Compu-Nox emissions analyzer. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

26. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3%O2, and the O2 concentration. The records must also include a description of any corrective action taken to maintain the emissions within the acceptable range. These records shall be retained at the facility for a period of no less than 2 years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

27. If the NOx or CO concentrations, as measured by the portable analyzer/Compu-NOx emissions analyzer, exceed the allowable emissions rate, the permittee shall notify the District and take corrective action within one (1) hour after detection. If the portable analyzer readings continue to exceed the allowable emissions rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emissions limits. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

28. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-61-3 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-2

PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305. [District Rule 4305]
3. No modification to this unit shall be performed without an Authority to Construct for that modification(s), except for changes specified in condition 3 below. [District Rule 2201]
4. The fuel supply line shall be locked out with spectacle blind or physically disconnected or prevented from this unit. [District Rule 2080]
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201]
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4701]
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-66-26 **EXPIRATION DATE:** 02/28/2006

SECTION: NE01 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 82, DIS# 26753-80) WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE FOR BLOWER MOTOR, AND O2 ANALYZER FOR FGR CONTROL

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 47 ppmvd @ 3% O2 or 0.035 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
6. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit
9. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 52.5 lb-CO/day, and 19,163 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

13. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

20. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

25. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

26. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

39. The regional administrator shall be notified within fifteen (15) days following any sudden and unavoidable failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions, and shall be notified of the estimated resultant emissions in excess of those projected under normal operations; and the methods to be utilized to restore normal operations. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

40. In the event that any National Ambient Air Quality Standard (NAAQS) for sulfur-oxides (3-hour, 24-hour and annual average as provided by 40 CFR 50) is exceeded at any time, at either the CARB or the Westside Operators' SO2 monitors in the McKittrick area, permittee shall take the control measures specified below, to maintain emissions at the existing levels. The control measure requirements of this permit must be met within twenty-four (24) hours of notification of any exceedance of the NAAQS for sulfur oxides. Also, within twenty-four (24) hours of notification of an exceedance, permittee shall report the exceedance and their control measures to the District and to the EPA's Chief of the Enforcement Section. [PSD SJ 76-24, a.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. In the event that both the CARB or the Westside Operators' SO2 monitors in the McKittrick area are removed from their present locations or are shutdown for a period exceeding 6 months, permittee shall reinstall the Chevron McKittrick Oil Field SO2 monitoring station at its present location. The reinstalled station shall meet the technical specifications of the EPA and the District. Permittee shall then perform continuous ambient air monitoring at the previously approved site location. All monitoring data shall be reported to the District at least monthly or as further specified by the District. [PSD SJ 76-24, a.2] Federally Enforceable Through Title V Permit

42. In the event that there is an exceedance of any NAAQS for SOx (3-hour, 24-hour and annual average as provided by 40 CFR 50) at the monitoring station described herein after construction and operation of the three proposed steam generators, one heater-treater, and associated equipment, permittee shall take control measures to reduce emissions to the emission levels in the McKittrick Oil Field (The Field) as they existed before the construction of the new equipment. These measures shall consist of: shutting down as many generators and associated equipment in The Field as is necessary to effect a reduction of 669 barrels per day of fuel consumption; or the use of a low sulfur fuel oil in as many generators in The Field to reduce SO2 emissions by 2.7 tons/day; or such technology as approved by USEPA which would reduce SO2 emissions by 2.7 tons/day; or any combination of the above. Any emission reductions accomplished for the purpose of avoiding an exceedance of any NAAQS shall be permanent and emissions shall not be increased thereafter. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

43. Permittee shall not use any stacks higher than 50 feet (as measured from ground to top of stack) on any generator in the McKittrick Oil Field. [PSD SJ 76- 24] Federally Enforceable Through Title V Permit

44. Permittee shall install and operate a casing-head vapor recovery system on their existing steam flood project as described on P. 15 of their application. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

45. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

46. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-68-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 76, DIS# 43016-82) NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 CONTROLLER - CYMRIC

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
6. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
8. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit
9. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

13. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

20. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

24. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

25. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

26. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-75-23 **EXPIRATION DATE:** 02/28/2006

SECTION: SW6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 91, DIS# 43001-85) WITH NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 1, T30S, R21E; SW 1/4 of Section 36, T29S, R21E; and SW 1/4 Section 6Z, T30S, R22E. [District NSR Rule and District Rule 4102] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

39. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-76-19 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 93, DIS# 37425-2) WITH A NORTH AMERICAN GLE MAGNA-FLAME LOW-NOX BURNER, FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 ANALYZER (PERMITTED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. This generator is permitted to operate at the following locations: NE 1/4 Section 26 and NW 1/4 Section 25, T32S, R23E; all of Section 1, R30S, T21E; NW 1/4 Section 7, R30S, T22E; Section 36, T31S, R23E; SW 1/4 Section 6, R30S, T22E; and all of Section 19 and 20, R30S, T22E. [District Rule 2201 and District Rule 4102] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1, and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5, and 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
11. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
13. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Emission rates shall not exceed PM10: 0.005 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.007 lb/MMBtu, and CO: 0.021 lb/MMBtu or 29 ppmv @ 3% O2. [District NSR Rule and District Rules 4305, 5.1.1 and 4306, 5.1.1] Federally Enforceable Through Title V Permit
15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules District Rules 4305, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

21. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, and stack gas moisture - EPA Method 4. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

25. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

26. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-77-22 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 92, DIS# 43003-85) WITH A NORTH AMERICAN MODEL MAGNA FLAME GLE-4231 LOW NOX BURNER AND A WITH FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: NE 1/4 Section 26 and NW 1/4 Section 25, T32S, R23E; SE 1/4 Section 1, R30S, T21E; NW 1/4 Section 7, R30S, T22E; Section 36, T31S, R23E; and SW 1/4 Section 6Z, T30S, R22E. [District Rule 4102]
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

37. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-79-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #95 (DIS#43007-85) EQUIPPED WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 26, T32S/R23E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S/R21E; SW/4 of Sec. 36, T29S/R21E; and the SE/4 of Sec. 35, T29S/R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 28 ppmvd @ 3% O2 or 0.020 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 30.5 lb-CO/day, and 11,114 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

39. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-80-20 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM (CUSA ID# 96) - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD

PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 26, T32S, R23E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S, R21E; SE/4 and SW/4 of Sec. 36, T29S, R21E; and the SE/4 of Sec. 35, T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

40. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-111-20 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 72) WITH A NORTH AMERICAN MODEL #4231 G-LE MAGNA FLAME LOW-NOX BURNER WITH VARIABLE FREQUENCY DRIVE FOR THE BLOWER MOTOR, FGR, AN O2 ANALYZER FOR FGR CONTROL, AND APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. This generator is approved to operate at the following locations: Sec. 6, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

40. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-112-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FLUE GAS RECIRCULATION (CUSA ID# 73) APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. This generator is approved to operate at the following locations: Sec. 6, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed PM10: 0.005 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.007 lb/MMBtu, and CO: 0.021 lb/MMBtu or 29 ppmv @ 3% O2. [District Rules 4305, 4306 and NSR] Federally Enforceable Through Title V Permit
6. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; 4306, 6.2.1 and 4351, 6.2.1] Federally Enforceable Through Title V Permit

11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

15. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.4.2, 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

16. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.4.2, 4305, and 4306] Federally Enforceable Through Title V Permit

17. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.4.2, 4305, and 4306] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4305, and 4306] Federally Enforceable Through Title V Permit

26. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

27. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

28. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2, 4305, and 4306] Federally Enforceable Through Title V Permit

30. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

31. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

34. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-113-21 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 97) WITH A NORTH AMERICAN MAGNA-FLAME GLE LOW-NOX BURNER AND FGR - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD

PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 26, T32S, R23E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S, R21E; SE/4 and SW/4 of Sec. 36, T29S, R21E; and the SE/4 of Sec. 35, T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

13. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

25. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

26. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

36. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-116-59 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WELL VENT VR SYSTEM #CC-36W #1 SERVING 146 STEAM DRIVE WELLS AND 6 AUTOMATIC WELL TEST VESSELS W/ VAPOR PIPING TO SCRUBBED STEAM GENERATORS, DOGGR APPROVED DISPOSAL WELLS(S,) SULFEROX H2S REMOVAL PLANT, 0.34 MMBTU/HR KALDAIR FLARE (FLARE SHARED W/ '-128, '-130, '-144, '-248, & '-383) 460 MMBTU/HR JOHN ZINK MODEL #EEF-LHLS-24 AIR ASSISTED EMERGENCY FLARE

PERMIT UNIT REQUIREMENTS

1. No modification to the 1Y Kaldair emergency flare shall be performed without an Authority to Construct for such modifications, except for changes specified in the conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. Upon seven days prior written notice to the District, the 1Y Kaldair emergency flare may be designated as a dormant emissions unit or an active emissions unit. [District Rule 4311] Federally Enforceable Through Title V Permit
3. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
4. When the 1Y Kaldair emergency flare is designated as a dormant emissions unit, the permittee shall not be required to perform the monitoring and recordkeeping requirements otherwise required by this permit and Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
5. Upon recommencing operation of the 1Y Kaldair emergency flare, recordkeeping and monitoring requirements otherwise required by this permit and Rule 4311 shall resume. [District Rule 4311] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070]
7. If the 1Y Kaldair emergency flare has become dormant because it does not comply with District Rules, or if the unit becomes out of compliance with District Rules while it is dormant, operation of the unit is not authorized until an Authority to Construct permit is issued approving all necessary retrofits and permit changes required to comply with the respective District Rules. [District Rule 2010] Federally Enforceable Through Title V Permit
8. The Kaldair flare shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The air-assisted John Zink flare shall not discharge air contaminants into the atmosphere which exceeds 5% opacity or Ringelmann 1/4 for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Operation of flares for other than maintenance and testing shall be limited to unforeseen electrical power outages or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) is not due to neglect or disregard of air pollution laws or rules; 2) is not intentional or the result of negligence; 3) is not due to improper maintenance; 4) does not constitute a nuisance; and 5) results in the use of equipment exempted from offsets by Rule 2201 to prevent or ameliorate an unsafe situation. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The owner or operator shall notify the District of any emergency use of the flare within one hour after confirmation that an actual flaring event has occurred, unless the owner or operator demonstrates to the District's satisfaction that a longer notification period was necessary. However, in the event that confirmation of an actual flaring event cannot be made, then the owner or operator shall notify the District no more than 3 hours after an alarm indicates that a flaring event may have occurred, unless the owner or operator demonstrates to the District's satisfaction that a longer notification period was necessary. [District Rule 1070] Federally Enforceable Through Title V Permit

12. The permittee shall report to the District in writing within ten days following the emergency use of the flare(s). The report shall include 1) a statement that the failure or malfunction has been corrected, the date corrected, and proof of correction; 2) a specific statement of the reason or cause for the occurrence; 3) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and 4) an estimate of the emissions caused by the emergency use, specifically including duration of flare operation and amount of gas burned. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit

13. Operation of each flare shall not exceed 200 hours per year for purposes of flare maintenance and testing. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Kaldair flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (2442 lb NOx/year), 322,538 lb SOx/year, 0.708 lb PM10/MMBtu (24,190 lb PM10/year), 0.063 lb VOC/MMBtu (2263 lb VOC/year) and 0.37 lb CO/MMBtu (13,290 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit

15. John Zink flare, for purposes of flare maintenance and testing, emissions rates shall not exceed any of the following: 0.068 lb NOx/MMBtu (672 lb NOx/year), 20,000 lb SOx/year, 0.708 lb PM10/MMBtu (3894 lb PM10/year), 0.063 lb VOC/MMBtu (622 lb VOC/year) and 0.37 lb CO/MMBtu (3656 lb CO/year). [District Rule 2201] Federally Enforceable Through Title V Permit

16. Sulfur compound combustion emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801; Kern County Rule 407] Federally Enforceable Through Title V Permit

17. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit

18. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit

19. Each emergency flare shall be equipped with a functional continuous flame detection device to detect at least one pilot flame or to detect the presence of flare flame. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

20. Fugitive VOC emission rate from fugitive component counts of the TEOR vapor control system, calculated using U.S. EPA publication 453/R-95-017, Table 2-4, based on 50% VOC by weight of Total Organic Content (TOC), shall not exceed 268.3 lb/day. [District Rule 2210] Federally Enforceable Through Title V Permit

21. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

22. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly gas sampling from Sample Point No. 1 (inlet) to SulFerox plant and Sample Point No. 2 (discharge) from SulFerox plant to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of all components downstream of vessel FV1. Sample Point No. 1 (inlet) is downstream of vessel FV1 and upstream of the SulFerox plant and representative of gas downstream that has not been processed through the SulFerox plant. Sample Point No. 2 (discharge) represents gas that has been processed through the SulFerox plant. [District Rule 2201] Federally Enforceable Through Title V Permit

25. If operator determines that the flow back system does not operate successfully, then the flow back system may be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Existing Tulare injection wells are authorized to operate as either flow back wells or injection wells until such a time as the DOGGR injection permit for the existing Tulare injection wells is terminated. Upon termination of the Tulare injection well permit by DOGGR, the existing Tulare injection wells will continue to operate as flow back wells only or be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

27. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit

28. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

29. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 14, 2006). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

30. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. This requirement does not apply to cyclic wells located on contiguous and adjacent oil production properties with less than 10 cyclic wells owned by or under the control of a company. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit

31. Total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed the number of allowable leaks allowed by Rule 4401 at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

32. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit

33. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

34. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

35. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

36. All records of required monitoring data and support information shall be maintained, retained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4401, 6.1] Federally Enforceable Through Title V Permit

37. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

38. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit

39. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with an operating vapor control system or if the wells are idle [District Rule 4401] Federally Enforceable Through Title V Permit

40. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

41. Leak inspection and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

42. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

43. Unless waived by the District, the operator shall maintain source test records which show that the control efficiency requirements have been satisfied. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

44. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. The operation includes heat exchanger(s), gas/liquid separator(s), condensate tank(s), compressor(s), gas volume flow rate and temperature indicator, and gas piping to SulFerox plant. [District NSR Rule] Federally Enforceable Through Title V Permit

47. The system includes gas piping from vapor control systems 36W #1 TEOR S-1128-116, 31X TEOR S-1128-128, 36W #2 TEOR S-1128-130, 5Z/6Z TEOR S-1128-144, 31X tank battery S-1128-248, Mckittrick Diatomite TEOR S-1129-864, and 1Y TEOR S-1128-385, TEOR flow back vapor collection from Tulare formation wells (previously used for disposal), and sweetened gas from SulFerox plant. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

48. John Zink flare field sour gas line shall be equipped with an operational flow meter. John Zink flare pilot gas line shall be equipped with an operational flow meter and pilot gas flow rate shall not exceed 12000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

49. Kaldair flare pilot gas line shall be equipped with an operational flow meter, except when designated a DEU, and pilot gas flow rate shall not exceed 4800 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

50. Only PUC quality natural gas shall be used as pilot gas in the flare. [District NSR Rule] Federally Enforceable Through Title V Permit

51. When operated, each flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

52. SulFerox plant includes sparge tower, gas/liquid separator(s), chemical regenerator vessel(s), chemical tank(s), sulfur press, sulfur bin(s), sweet gas outlet separator(s), particulate filter(s), and sweet gas piping to field gas system and DOGGR approved disposal wells. [District Rule 2201] Federally Enforceable Through Title V Permit

53. SulFerox offgas H2S content shall not exceed 12 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

54. Permittee shall measure the H2S content of the SulFerox plant's inlet gas stream at least once per day using a gas detection tube. [District Rule 2201] Federally Enforceable Through Title V Permit

55. Permittee shall measure the H2S content of the SulFerox plant's outlet gas stream at least once every 6 hours using a gas detection tube or operational H2S analyzer/monitor. Permittee shall maintain records of the outlet gas stream H2S content (ppmv). [District Rule 2201] Federally Enforceable Through Title V Permit

56. If the H2S content of the SulFerox plant's outlet gas stream is measured at 6 ppmv or higher using gas detection tubes, the permittee shall measure the H2S content once every 2 hours using gas detection tubes until the measured content drops below 6 ppmv, whereafter the measuring frequency will revert to every 6 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Gas detection tubes used to measure outlet and inlet H2S content shall have calibrated ranges between 1.5 and 30 ppmv for the outlet and 1,000 and 20,000 ppmv for the inlet when H2S concentration is below 20,000 ppmv and 2,000 and 40,000 ppmv for the inlet when H2S concentration equals or is above 20,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

58. Permittee shall measure and maintain a daily record of flare pilot gas volumes, John Zink flare field sour gas volume, and shall maintain an annual record of the number of hours of operation of each flare. [District Rule 2201] Federally Enforceable Through Title V Permit

59. With prior District approval, record keeping frequency of treated gas H2S content may be reduced upon demonstration of consistency of SulFerox process. [District Rule 2201] Federally Enforceable Through Title V Permit

60. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s), and shall make such listings readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

61. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-125-20 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 153 STEAM ENHANCED WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND VAPOR PIPING TO STEAM GENERATORS S-1128-15, S-1128-18, AND VAPOR PIPING TIED INTO VAPOR RECOVERY LINE FROM SYSTEM LISTED UNDER PERMIT S-1128-617

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records for a period of five years and make such records readily available for District inspection upon request. [District Rule 2520, 9.5.2]
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
6. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
7. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
12. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rules 2520, 9.3.2 and 4401, 6.3.1] Federally Enforceable Through Title V Permit
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
14. VOC content of hydrocarbons in gas processed shall not exceed 37% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
19. Permit holder shall maintain updated well roster readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Water/VOC condensate from all vapor recovery systems shall be pumped to condensate collection tank or field gathering system. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Vapors shall not be vented to the atmosphere if VOC combustion source is inoperative. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Maximum fugitive VOC emission rate from the well head casing vent vapor collection system shall not exceed 170.6 lb/day, as calculated according to District Policy SSP 2015 Procedures for Quantifying Fugitive VOC Emissions At Petroleum and SOCMI Facilities. [District Rule 2201]
23. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201]
24. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

25. Except for when casing vents or downstream valves are closed; noncondensible gas shall be piped to one or more of the following steam generators for incineration: S-1128-15; S-1128-18 or to tanks equipped with an operating vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with an operating vapor control system or if the wells are idle [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-128-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-31X SERVING 60 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR(S), AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S)

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
6. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
7. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
12. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
14. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. The operation includes piping from pipeline vent pots 4, 5, and 6, heat exchanger(s), gas/liquid separator(s), gas/liquid separator S-1128-950, vapor compressor(s), and gas piping to either TEOR operation S-1128-116, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34, or DOGGR approved disposal well(s) [District NSR Rule] Federally Enforceable Through Title V Permit
19. VOC emission rate shall not exceed 165.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Permittee shall maintain with the permit a copy of DOGGR approval for each disposal well used for Rule 4401 compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
22. Records required by this permit shall be retained for a period of five years and shall be made available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-130-15 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WVVC SYSTEM CC-36W #2 SERVING 146 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED SG'S, DOGGR APPROVED DISPOSAL WELL(S), OR 5 AUTOMATIC WELL TEST VESSELS - CYMRIC

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
6. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
7. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
12. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
14. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. The operation includes piping from pipeline vent pots 2 and 3 to casing gas collection line, vapor piping from 5 automatic well test vessels (AWTs) in Sec 36, T29S, R21E (2 at GS#2, 1 at GS#3 and 2 at GS#4), diverter valve piping from TEOR #CC-1Y (S-1128-385) discharge line (tying S-1128-385 to S-1128-130), heat exchanger(s), gas/liquid separator(s), vapor compressor(s), gas volume flow rate and temperature indicators, and gas piping to either TEOR permit S-1128-116 collection system, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
19. S-1128-130 TEOR gas volume shall not exceed 1.5 MMscf/day and VOC content shall not exceed 4% by volume. [District NSR Rule] Federally Enforceable Through Title V Permit
20. VOC emission rate shall not exceed 301.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain an accurate daily record of TEOR gas volume. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
23. Records required by this permit shall be retained for a period of five years and shall be made available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-144-9 **EXPIRATION DATE:** 02/28/2006

SECTION: 05 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-5Z/6Z SERVING 33 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S) - CYMRIC

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
6. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
7. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
12. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
14. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. The operation includes heat exchanger(s), gas/liquid separator(s), vapor compressor(s), and gas piping to either TEOR operation S-1128-116, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34 or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
19. VOC emissions shall not exceed 103.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
21. Records required by this permit shall be retained for a period of five years and shall be made available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-154-29 **EXPIRATION DATE:** 02/28/2006

SECTION: 08 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL/PRODUCED GAS FIRED STEAM GENERATOR (CUSA ID #14) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.07 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
3. The sulfur content of fuel combusted shall not exceed 1.16 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Emissions from the steam generator shall not exceed any of the following limits: 0.0033 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
7. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
9. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit
10. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

12. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Steam generator shall be equipped with fuel gas (natural gas) and supplemental gas (produced gas) volumetric flow rate indicators. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Permittee shall measure and record the volume of fuel gas (natural gas) and supplemental gas (produced gas) burned in the steam generator on a daily basis. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Permittee shall measure and record fuel gas (natural gas) and supplemental gas (produced gas) sulfur contents at least once per month. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

35. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

36. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

43. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-159-21 **EXPIRATION DATE:** 02/28/2006

SECTION: 18 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (CUSA ID# 18-A)

PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 18, T30S, R22E and SE/4 of Sec. 8, T30S, R22E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
11. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

26. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

39. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-160-5 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 16 STEAM DRIVE WELLS AND 18 CYCLIC WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
6. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
7. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
12. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-161-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 08 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 65 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
4. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
5. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
6. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
7. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
9. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
12. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
13. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
14. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. Final vapor condenser shall utilize exhaust gas temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Condensate collection vessel shall be equipped with high efficiency mist eliminator. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Mist eliminator shall be maintained in optimum operating condition. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Condensate shall be disposed of in manner preventing VOC emissions to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
22. VOC emission rate shall not exceed 214.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-162-5 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 40 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
4. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
6. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
7. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
8. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
9. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
10. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
11. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit
13. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
14. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
15. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
19. The operation shall be equipped with 2 heat exchangers, 1gas liquid separator, 1 vapor compressor, and compressed vapor piping to authorized disposal/incineration devices. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-183-14 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
3,300 BBL FIXED ROOF CRUDE OIL WASH TANK #T-1 WITH VAPOR CONTROL SYSTEM CONSISTING OF KNOCKOUT VESSEL(S), HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S) AND VAPOR COMPRESSOR(S)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in District Rule 4623 Section 6.4.7. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor control system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
4. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
5. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
8. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
9. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
11. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
12. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
20. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
21. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

23. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

24. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

29. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Tank vapor control system shall include a gas blanketing line from field fuel gas line including one gas pressure regulator set at less than 15 psig and one pressure control valve regulated by sensing line set to open gas supply valve at 0.4 in H20. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Tank vapor control system shall include a vapor recovery line including one pressure control valve regulated by tank pressure sensing line set to open at pressures of 1.5 in H2O, and piping from vapor recovery line to air cooled heat exchanger. [District NSR Rule] Federally Enforceable Through Title V Permit

33. Vapor piping from vapor collection system to T.E.O.R. operation vapor collection piping shall be equipped with check valve to prevent vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

34. All tank roof vents, gauge hatches, and breather valves shall be installed and maintained at minimum release pressure of 0.125 psig and vacuum of 0.025 psig. [District NSR Rule] Federally Enforceable Through Title V Permit

35. The vapor control system shall collect vapors from tanks S-1128-230, -231, -232, -278, -605, -608 and -609, and shall send the compressed vapors to steam generators S-1128-15 and S-1128-18. [District NSR Rule] Federally Enforceable Through Title V Permit

36. If VOC combustion source is inoperative, tank vapor shall be routed to T.E.O.R. casing collection system S-1128-125. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

41. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

42. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

43. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-222-12 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
5000 BBL FREE WATER KNOCK-OUT TANK #T-1 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-223, 224, 225, 226, 227, 228, 229, 701, 703, & 923, INCLUDING 561,000 BTU/HR HEAT EXCHANGER, KNOCKOUT VESSEL, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO S-1128-36 AND -48

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-223-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
5000 BBL FREE WATER KNOCK-OUT TANK #T-2 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-224-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
10,000 BBL WASH TANK #T-3 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-225-9 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
10,000 BBL WASH TANK #T-4 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-226-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2000 BBL LACT TANK #T-5 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-227-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2000 BBL REJECT TANK #T-6 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-228-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
1000 BBL REJECT TANK #T-7 VENTED TO VAPOR CONTROL SYSTEM SYSTEM SHARED W/S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-229-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
WEMCO AIR FLOATATION UNIT #W-1 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-230-7 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
3,300 BBL FIXED ROOF CRUDE OIL WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-231-7 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF LACT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-232-7 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF LACT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-248-38 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF CRUDE OIL TANK T-24 W VAPOR CONTROL SYS SHARED W/23 PERMIT UNITS; INCLUDING HEAT EXCHANGER(S), G/L SEPARATOR(S), GAS COMPRESSORS, & GAS PIPING TO SULFEROX PLT (S-1128-116), SCRUBBED STEAM GENERATORS OR DOGGR APPROVED DISPOSAL WELLS

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
2. The following tanks shall be connected to vapor control system: S-1128-248, -250, -253, -255, -257, -262, -263, -297, -298, -300, -400, -401, -402, -404, -405, -406, -407, -411, -412, -935, -936, -938, -940, and -958. [District NSR Rule] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
7. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

10. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

15. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The efficiency of any VOC destruction device shall be measured by USEPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

17. The operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Tank vapor control system includes heat exchanger(s), gas/liquid separator(s), gas eliminator, gas compressor(s), condensate pump(s), and gas piping to either TEOR permit S-1128-116 collection piping, scrubbed steam generators S-1128-3, -24, -25, -26, and -29 through -34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit

20. VOC content of total hydrocarbons in gas processed by the vapor control system, upstream of compressors, shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 107.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Records of VOC content of the hydrocarbons in the gas processed by vapor control system shall be kept at the facility and made readily available for compliance inspection upon request for a period of 5 years. [District Rule 1070] Federally Enforceable Through Title V Permit

24. VOC content of hydrocarbons in gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

25. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

28. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

30. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

33. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

34. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-250-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED ROOF STORAGE TANK (T-41) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-262-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-35) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-263-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-278-9 **EXPIRATION DATE:** 02/28/2006

SECTION: NW02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
1,000 BBL FIXED ROOF SUMP REPLACEMENT TANK #T-154 WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-297-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
WEMCO M-1 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
4. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this tank and associated tank vapor recovery system shall not exceed the amount specified on S-1128-248. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 2201] Federally Enforceable Through Title V Permit
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
12. Permittee shall notify the District compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Exhaust VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) For oil/water separation vessels, the operator may degas the vessel vapor space by restricting the outflow of water and floating off the oil pad, such that at least 90 percent of the vessel volume is displaced. [District Rule 2080] Federally Enforceable Through Title V Permit

15. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Within 48 hours after refilling the vessel with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator shall keep accurate records of types, storage temperature and the true vapor pressure of liquids stored. Such records shall be retained for a minimum of five years and made available by the APCO for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

29. VOC content of hydrocarbons in TEOR gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

30. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

31. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

33. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-298-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
WEMCO M-2 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
4. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this tank and associated tank vapor recovery system shall not exceed the amount specified on S-1128-248. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 2201] Federally Enforceable Through Title V Permit
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
12. Permittee shall notify the District compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Exhaust VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) For oil/water separation vessels, the operator may degas the vessel vapor space by restricting the outflow of water and floating off the oil pad, such that at least 90 percent of the vessel volume is displaced. [District Rule 2080] Federally Enforceable Through Title V Permit

15. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Within 48 hours after refilling the vessel with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator shall keep accurate records of types, storage temperature and the true vapor pressure of liquids stored. Such records shall be retained for a minimum of five years and made available by the APCO for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

29. VOC content of hydrocarbons in TEOR gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

30. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

31. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

33. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-302-5 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
8.4 MMBTU/HR NATURAL GAS-FIRED BOILER #3 WITH A CLEAVER BROOKS MODEL ICH84GX30S LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM

PERMIT UNIT REQUIREMENTS

1. Units S-1128-7, -8, and -302 shall be equipped with a master fuel flow meter. Annual fuel use for each unit shall be calculated based on hours of operation of each unit and total fuel use from master meter. [District Rules 4306 and NSR] Federally Enforceable Through Title V Permit
2. Unit shall be operated in accordance with the manufacturer's recommendations. [District Rule 4305] Federally Enforceable Through Title V Permit
3. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
4. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2520, 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit
5. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Emission rates shall not exceed any of the following: SOx (as SO2): 0.00285 lb/MMBtu; PM10: 0.0075 lb/MMBtu; or VOC: 0.0054 lb/MMBtu. [District Rules 2201, 4201, 3.1, 4301, 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

9. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, or CO: 0.0824 lb/MMBtu or 112 ppmvd @ 3% O2. [District Rules 2201, 2520, 9.3.2, 4201, 3.1, 4301, 5.2, 5.3, and 5.5, 4305 and 4306] Federally Enforceable Through Title V Permit

10. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rule 4306] Federally Enforceable Through Title V Permit

11. During start-up and shutdown periods emissions from the boiler shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.0824 lb-CO/MMBtu. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

12. Maximum emissions from the boiler, including start-up and shutdown, shall not exceed any of the following limits: 19.8 lb-NOx/day, 1080 lb-NOx/yr, 16.6 lb-CO/day, and 2472 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

14. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

15. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

17. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407; District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules NSR and 4406] Federally Enforceable Through Title V Permit

23. Permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 4306 and NSR] Federally Enforceable Through Title V Permit

24. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

26. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

27. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2520. 9.3.2, 4305 and 4306] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

29. Compliance demonstration (source testing) shall be conducted by independent testing laboratories and shall be witnessed, or authorized by the District. Sample collection shall be done by ARB certified testing laboratory. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

32. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

34. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

35. Stack gas moisture content for source test purposes shall be determined using EPA Method 4. [District Rule 1081] Federally Enforceable Through Title V Permit

36. Stack gas oxygen for source test purposes shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit

37. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

43. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-303-4 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
5.23 MMBTU/HR NATURAL GAS FIRED BOILER #F-2

PERMIT UNIT REQUIREMENTS

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
2. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rule 4305]

17. Unit shall be tuned at least once each calendar year in which it operates by a qualified technician in accordance with Rule 4304. [District Rule 4305]

18. This unit shall be equipped with a totalizing, non-resettable fuel flow meter. [District Rule 4305]

19. Unit shall be operated in accordance with the manufacturer's recommendations. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Permittee shall maintain records of fuel hhv, monthly fuel use, and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-305-4 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
375 BHP CATERPILLAR MODEL 3406DT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [17 CCR 93115]
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-306-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE01 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
600 BHP CUMMINS MODEL KTA1965T DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [17 CCR 93115]
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-307-4 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
375 BHP CATERPILLAR MODEL 3406DT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [17 CCR 93115]
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements of SJVUAPCD Rule 4201; Rule 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-335-2 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-6

PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305. [District Rule 4305]
3. No modification to this unit shall be performed without an Authority to Construct for that modification(s), except for changes specified in condition 3 below. [District Rule 2201]
4. The fuel supply line shall be locked out with spectacle blind or physically disconnected or prevented from this unit. [District Rule 2080]
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201]
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4701]
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-336-2 **EXPIRATION DATE:** 02/28/2006

SECTION: 25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-7

PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4305. [District Rule 4305]
3. No modification to this unit shall be performed without an Authority to Construct for that modification(s), except for changes specified in condition 3 below. [District Rule 2201]
4. The fuel supply line shall be locked out with spectacle blind or physically disconnected or prevented from this unit. [District Rule 2080]
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201]
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4701]
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-337-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #22-5-26C WITH LOW PRESSURE FUEL INDUCED RECIRCULATION (LPFIR) - TAFT (GROUP II)

PERMIT UNIT REQUIREMENTS

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
2. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
3. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Emission rates shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, and CO: 0.035 lb/MMBtu or 48 ppmv @ 3% O2. [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

17. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

19. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

20. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

21. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

23. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and stack gas moisture content - EPA Method 4. [District Rules 1081, 4305] Federally Enforceable Through Title V Permit

29. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

30. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

31. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-360-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
24 MMBTU/HR BOILER C-139 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201]
3. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, and CO: 0.035 lb/MMBtu or 48 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351]
6. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
8. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
17. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit
19. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit
20. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit
21. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

23. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

29. Permittee shall maintain records of fuel hhv and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and stack gas moisture content - EPA Method 4. [District Rules 1081, 4305] Federally Enforceable Through Title V Permit

31. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

32. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-361-6 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
24 MMBTU/HR BOILER C-140 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201]
3. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, and CO: 0.035 lb/MMBtu or 48 ppmv @ 3% O2. [District Rules 2201, 4305, and 4351]
6. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
8. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit

14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. The stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

19. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

20. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

21. Source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. If permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

23. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. An operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

29. Permittee shall maintain records of fuel hhv and cumulative annual fuel use for a period of five years and shall make such records readily available for District inspection upon request. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and stack gas moisture content - EPA Method 4. [District Rules 1081, 4305] Federally Enforceable Through Title V Permit

31. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081] Federally Enforceable Through Title V Permit

32. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.4.2 and 4305] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-366-19 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-1) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these run can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(6)] Federally Enforceable Through Title V Permit

36. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

43. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

46. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

47. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

48. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

51. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-367-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-2) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these run can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(6)] Federally Enforceable Through Title V Permit

36. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

43. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

46. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

47. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

48. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

51. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-368-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-3) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
4. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
5. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
6. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
7. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
9. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

18. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

19. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

24. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

25. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

26. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

27. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

28. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080]

29. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

30. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

32. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

33. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

34. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

35. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

36. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these run can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(6)] Federally Enforceable Through Title V Permit

37. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

40. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

42. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

44. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

46. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

47. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

48. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

49. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

51. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

52. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-369-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-4) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
4. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
5. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
6. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
7. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
9. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

18. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

19. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

24. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

25. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

26. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

27. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

28. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

29. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

30. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

32. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

33. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

34. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

35. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

36. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these run can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(6)] Federally Enforceable Through Title V Permit

37. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

40. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

42. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

44. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

46. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

47. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

48. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

49. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

51. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

52. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-370-21 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-1) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE WITH A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
5. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
6. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) within 60-days of initial startup under this permit and at least once every seven years thereafter. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-371-21 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-2) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE WITH A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on-PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
5. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
6. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) within 60-days of initial startup under this permit and at least once every seven years thereafter. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted within 60 days of initial startup under this permit and annually thereafter. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-372-20 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-3) INCLUDING 37.6 MMBTU/HR (NOMINAL RATING) SOLAR CENTAUR GAS TURBINE ENGINE WITH WATER INJECTION AND ONE HEAT RECOVERY STEAM GENERATOR WITH A 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER WITH AMMONIA INJECTION, SELECTIVE CATALYTIC REDUCTION (SCR), AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) FOR NOX, CO AND O2

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
4. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
5. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

17. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

19. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The owner or operator shall maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

22. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

23. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

24. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

25. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

26. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

27. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

28. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

29. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

32. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

33. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-373-20 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-4) INCLUDING 37.6 MMBTU/HR (NOMINAL RATING) SOLAR CENTAUR GAS TURBINE ENGINE WITH WATER INJECTION AND ONE HEAT RECOVERY STEAM GENERATOR WITH A 37 MMBTU/HR DUCT BURNER (NOMINAL RATING) WITH AMMONIA INJECTION, SELECTIVE CATALYTIC REDUCTION (SCR), AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) FOR NOX, CO AND O2

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
4. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
5. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

17. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

19. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. The owner or operator shall maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

22. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

23. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

24. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

25. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

26. The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

27. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

28. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

29. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

30. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit
32. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit
33. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit
39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit
40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit
41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit
43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-374-12 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
DORMANT 2.7 MW COGEN FACILITY (CUSA ID# 31X CG-1) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit
4. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b);60.332(a); Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
5. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf . [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. Total heat input to the turbine/duct burner system shall not exceed 1,870 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall not exceed a NOx emission rate of 42 ppmvd @ 15% O2, excluding thermal stabilization and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit
8. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Rule 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), Rule 110 (Madera), and Rule 108 (Kings)] Federally Enforceable Through Title V Permit
9. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM methods D 1072, D 3031, D 4084, D 3246, D 6228 or grab sample analysis by double GC for H2S and mercaptans. [Rules 1081and 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
10. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. HHV and LHV of the fuel shall be determined using ASTM D 3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

12. Nitrogen oxides (NOx) concentration from the gas turbine exhaust shall be determined using EPA Method 7E or 20, and oxygen (O2) concentration shall be determined using EPA Method 3, 3A, or 20. Carbon monoxide (CO) emissions shall be determined using EPA Test Methods 10 or 10B. EPA approved alternative test methods may also be used to address the source testing requirements of this permit. [District Rule 1081; District Rule 4703, 5.1,5.2, & 6.4; 40 CFR 60.335(a) and (b),(c)] Federally Enforceable Through Title V Permit

13. The operator shall provide source test information annually regarding the exhaust gas NOx, CO and O2 concentrations corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

14. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

15. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

18. The requirements of 40 CFR 72.6 (b) do not apply to this source because only non-Title IV sources can qualify to use the applicable template. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

22. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [District Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

23. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

25. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

26. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

27. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

28. Fuel gas shall have a sulfur content not exceeding 0.71 grain/100 scf, and shall otherwise be of PUC regulated quality. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Gas combusted shall be exclusively PUC regulated natural gas or natural gas documented to be of comparable sulfur quality. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to insure emission limitation compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Permittee shall keep accurate daily records of fuel source and fuel consumption, and quarterly fuel gas sulfur and nitrogen contents, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2520, 9.4.2 and NSR] Federally Enforceable Through Title V Permit

32. Permittee shall continuously monitor and record the water/fuel ratio to the turbine. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx emissions may be measured by use of water/fuel ratio and District approved correlation equation. [District NSR Rule] Federally Enforceable Through Title V Permit

34. If water injection system is inoperative, gas turbine engine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Except during periods of thermal stabilization or reduced load, CO emissions shall not exceed the following: with only the gas turbine engine firing, 86 ppmv at 15 % O2 and , with the gas turbine engine and duct burner both firing, 44 ppmv at 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Thermal Stabilization period shall be defined as the startup or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District Rule 4703] Federally Enforceable Through Title V Permit

37. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed time periods of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

38. NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis, except during periods of thermal stabilization or reduced loads. [District Rule 4703, 5.1.2 and 7.2.1] Federally Enforceable Through Title V Permit

39. Emission rates shall not exceed the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu and 150 ppmv @ 15% O2, NOx (as NO2): 0.150 lb/MMBtu and 200 ppmv @ 15% O2 and VOC: 0.026 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-375-12 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
DORMANT 2.7 MW COGEN FACILITY (CUSA ID# 31X CG-2) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STURTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit
4. Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b);60.332(a); Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
5. Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf . [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. Total heat input to the turbine/duct burner system shall not exceed 1,870 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall not exceed a NOx emission rate of 42 ppmvd @ 15% O2, excluding thermal stabilization and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit
8. Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Rule 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), Rule 110 (Madera), and Rule 108 (Kings)] Federally Enforceable Through Title V Permit
9. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM methods D 1072, D 3031, D 4084, D 3246, D 6228 or grab sample analysis by double GC for H2S and mercaptans. [Rules 1081and 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
10. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. HHV and LHV of the fuel shall be determined using ASTM D 3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

12. Nitrogen oxides (NOx) concentration from the gas turbine exhaust shall be determined using EPA Method 7E or 20, and oxygen (O2) concentration shall be determined using EPA Method 3, 3A, or 20. Carbon monoxide (CO) emissions shall be determined using EPA Test Methods 10 or 10B. EPA approved alternative test methods may also be used to address the source testing requirements of this permit. [District Rule 1081; District Rule 4703, 5.1,5.2, & 6.4; 40 CFR 60.335(a) and (b),(c)] Federally Enforceable Through Title V Permit

13. The operator shall provide source test information annually regarding the exhaust gas NOx, CO and O2 concentrations corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

14. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

15. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. The operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

18. The requirements of 40 CFR 72.6 (b) do not apply to this source because only non-Title IV sources can qualify to use the applicable template. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

22. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [District Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

23. Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

25. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

26. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

27. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

28. Fuel gas shall have a sulfur content not exceeding 0.71 grain/100 scf, and shall otherwise be of PUC regulated quality. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Gas combusted shall be exclusively PUC regulated natural gas or natural gas documented to be of comparable sulfur quality. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to insure emission limitation compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Permittee shall keep accurate daily records of fuel source and fuel consumption, and quarterly fuel gas sulfur and nitrogen contents, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2520, 9.4.2 and NSR] Federally Enforceable Through Title V Permit

32. Permittee shall continuously monitor and record the water/fuel ratio to the turbine. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx emissions may be measured by use of water/fuel ratio and District approved correlation equation. [District NSR Rule] Federally Enforceable Through Title V Permit

34. If water injection system is inoperative, gas turbine engine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Except during periods of thermal stabilization or reduced load, CO emissions shall not exceed the following: with only the gas turbine engine firing, 86 ppmv at 15 % O2 and , with the gas turbine engine and duct burner both firing, 44 ppmv at 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

36. NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis, except during periods of thermal stabilization or reduced loads. [District Rule 4703, 5.1.2 and 7.2.1] Federally Enforceable Through Title V Permit

37. Thermal Stabilization period shall be defined as the startup or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed time periods of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Emission rates shall not exceed the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu and 150 ppmv @ 15% O2, NOx (as NO2): 0.150 lb/MMBtu and 200 ppmv @ 15% O2 and VOC: 0.026 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-376-12 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 6Z CG-1) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) WITH AMMONIA INJECTION SYSTEM, A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.012 lb-PM10/MMBtu; 0.026 lb-VOC/MMBtu referenced as methane; and 0.003 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 67.8 lb-NOx/day referenced as NO2; 1,174.3 lb-CO/day; 5.6 lb-SOx/day; 22.4 lb-PM10/day; 99.8 lb-VOC/day referenced as methane; and 53.1 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 22,516 lb-NOx/year; 73,595 lb-CO/year; 2,047 lb-SOx/year; 8,189 lb-PM10/year; 17,999 lb-VOC/year; 19,339 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-376 or -377) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually thereafter. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. NOx, CO and O2 concentrations from the gas turbine systems operating under permits S-1128-376 and S-1128-377 shall be monitored by a common CEMS. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: (1) perform annual RATA testing on at least one unit (S-1128-376 or S-1128-377), and rotate the unit tested so that each unit is tested over two years; (2) perform annual RAA testing for the unit for which the annual RATA is not performed, (3) if a unit fails RAA testing, RATA test must be conducted within 60 days on the failed unit, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed on each unit. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these run can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(6)] Federally Enforceable Through Title V Permit

36. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Except during black start, each startup shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Each shutdown shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

43. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

46. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

47. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

48. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

51. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-377-12 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 6Z CG-2) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) WITH AMMONIA INJECTION SYSTEM, A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.012 lb-PM10/MMBtu; 0.026 lb-VOC/MMBtu referenced as methane; and 0.003 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 67.8 lb-NOx/day referenced as NO2; 1,174.3 lb-CO/day; 5.6 lb-SOx/day; 22.4 lb-PM10/day; 99.8 lb-VOC/day referenced as methane; and 53.1 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 22,516 lb-NOx/year; 73,595 lb-CO/year; 2,047 lb-SOx/year; 8,189 lb-PM10/year; 17,999 lb-VOC/year; 19,339 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-376 or -377) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. NOx, CO and O2 concentrations from the gas turbine systems operating under permits S-1128-376 and S-1128-377 shall be monitored by a common CEMS. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: (1) perform annual RATA testing on at least one unit (S-1128-376 or S-1128-377), and rotate the unit tested so that each unit is tested over two years; (2) perform annual RAA testing for the unit for which the annual RATA is not performed, (3) if a unit fails RAA testing, RATA test must be conducted within 60 days on the failed unit, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed on each unit. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. Should the applicant decide to conduct performance evaluation of CEMS with the initial performance test, a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load shall be performed. The test data obtained during these run can be used to demonstrate compliance with the applicable NOx emission limit and to provide reference method data for the RATA of the CEMS. The requirement to test at three additional load levels is waived under this option. [40 CFR 60.335(b)(6)] Federally Enforceable Through Title V Permit

36. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Except during black start, each startup shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. Each shutdown shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

39. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

43. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

46. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

47. NOx emissions shall not exceed 42 ppmvd @ 15% O2 (1-hour average), excluding startup (black start), shutdown and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit

48. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

51. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-385-47 **EXPIRATION DATE:** 02/28/2006

SECTION: 1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-1Y SERVING 570 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, GAS FLOW AND TEMPERATURE INDICATORS, AUTOMATIC WELL TEST STATIONS, AND GAS PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED STEAM GENERATORS, OR DOGGR APPROVED DISPOSAL WELL(S)

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
3. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
4. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
5. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
6. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
7. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit
8. The operation includes gauge vessel(s), heat exchanger(s), gas/liquid separator(s), condensate tank(s), vapor compressor(s), gas volume flow rate and temperature indicators, and gas piping to either TEOR permit S-1128-116 collection system, TEOR permit S-1128-130 collection system, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
9. There shall be no more than 50 stuffing boxes. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of hydrocarbons in gas processed shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Fugitive VOC emissions from components in vapor and condensate service shall not exceed 266.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Fugitive VOC limit listed above does not include components at the well-head up to the point of initial gas/liquid separation, or existing production handling or flow measurement facilities. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit

14. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

15. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

16. The source shall perform annual leak inspections on at least 20% of the components in the well vent vapor control system using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

17. Components to be screened shall be identified and categorized according to the following equipment types: connectors, flanges, open-ended lines (sample connections, drains, bleed valves, etc.), pump seals, valves with visible actuators, polish rod stuffing boxes and other (pressure relief devices, compressor seals, meters, etc.). Components shall be further identified and categorized according to the following types of service: gas/vapor, liquid with an API gravity of 20 degrees or more, and liquid with an API gravity less than 20 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit

18. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

19. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Permittee shall maintain for a period of five years, accurate daily records of volume of vapors handled, a list of all thermally enhanced production wells associated with this operation, accurate records of fugitive inspection component counts and leak inspection results, and make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Permittee shall maintain with the permit accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using the EPA "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

24. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-390-9 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
797 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 17, 1992). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
4. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
6. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. This requirement does not apply to cyclic wells located on contiguous and adjacent oil production properties with less than 10 cyclic wells owned by or under the control of a company. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
7. For cyclic wells located on properties with less than 10 cyclic wells and owned by a company, the uncontrolled VOC emissions from any well vent or system of well vents connected to a single vapor collection and control device shall be reduced by at least 50 percent. Properties shall include contiguous and adjacent oil production properties owned by or under control of the company. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
8. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
9. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
10. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
11. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

13. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit

14. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

15. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

16. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

17. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. All wells with closed casing vents to comply with Rule 4401 (amended 1/15/98) shall be served only by production facilities equipped with District approved emission control systems achieving at least 99% vapor control. [District Rule 4401, 5.1, 5.2] Federally Enforceable Through Title V Permit

21. Permittee shall maintain a current well roster of all closed vent wells, and such roster shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-400-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,000 BBL FIXED ROOF FWKO TANK (T-11) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-401-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,000 BBL FIXED ROOF FWKO TANK (T-12) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-402-10 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
360 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL STORAGE TANK (T-19) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-404-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF WASH TANK (T-21) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-405-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF WASH TANK (T-22) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-406-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,000 BBL FIXED ROOF WASH TANK (T-23) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-407-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-40) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-409-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
214,326 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-411-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-31) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-412-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-32) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-415-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
5,712 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-416-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
7,602 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-425-3 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF DRAIN TANK TS #5

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-426-3 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF DRAIN TANK TS #7

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-427-3 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF DRAIN TANK TS #6

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-428-3 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED DRAIN TANK TS #4

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-431-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
43,428 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-435-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
211,596 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-437-3 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
4,746 GALLON FIXED GUAGE TANK GS #2

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-438-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SW5 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
4,746 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-455-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE8 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
22,008 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-456-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE8 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
33,600 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-526-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE27 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
43,428 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-529-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE35 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
4,746 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-530-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE35 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
43,428 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-536-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
22,008 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-540-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
11,005 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-542-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-546-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
82,320 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-548-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
82,320 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-588-3 **EXPIRATION DATE:**

EQUIPMENT DESCRIPTION:

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-600-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW1 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
41,622 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-605-8 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK #T-5 WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-606-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
5,292 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-607-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
56,952 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-608-8 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF WASTE WATER TANK #T-158B WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-609-8 **EXPIRATION DATE:** 02/28/2006

SECTION: NW02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF WASTE WATER TANK #T-158A WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
3. Permittee shall conduct API gravity and true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in the tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The API gravity and true vapor pressure (TVP) shall be determined using the latest methods specified in the most-recent version of District Rule 4623. [District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
8. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit
10. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

20. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

21. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) prior to venting the tank to the atmosphere, operate the tank vapor control system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank volume is displaced; or 3) vent the tank to a vapor control device/vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: t = 2.3 V/Q, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit
23. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
25. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
26. Within 48 hours after refilling the tank, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA Method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
27. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
28. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-610-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
59,178 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-617-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
3000 BBL FIXED ROOF PRODUCED WATER TANK #T-6 WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-618,-620,-621,-622,-623, AND -625, BAKER PETROLITE SULFASCRUB MODEL HSW 700 H2S SCAVENGING SYSTEM, AND INCLUDING VAPOR PIPING TO DISTRICT-APPROVED DISPOSAL OPTIONS AS IDENTIFIED IN THIS PERMIT

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
4. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
5. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
9. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
12. Operator shall keep a record of liquids stored in each container, storage temperature and the Reid vapor pressure of such liquids. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit
13. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
14. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3] Federally Enforceable Through Title V Permit
15. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit
16. The efficiency of any VOC destruction device shall be measured by EPA Method 18 or 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit
17. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
19. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
20. The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
21. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. Collected vapors shall be directed to either: 1. 1-C Gas Plant listed under permit S-48-1, 2. H2S scavenging system, and/or 3. TEOR well vent vapor piping from TEOR well system listed under permit S-1128-125. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. H2S scavenging system shall include triazine storage tank and feed pump. H2S-laden liquid shall be handled in downstream wastewater facilities in such a manner to prevent the evolution of sulfur compounds to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

24. Outlet gas from H2S scavenging system shall not exceed 12.0 ppmv H2S. [District NSR Rule] Federally Enforceable Through Title V Permit

25. H2S scavenging system shall be in operation whenever vapors are being incinerated in 2F steam plant steam generators S-1128-16, -17, -19, -23 or -920. [District NSR Rule] Federally Enforceable Through Title V Permit

26. When H2S scavenging is required, permittee shall measure and record sulfur content of H2S scavenging system outlet gas on a quarterly basis, using ASTM method D 1072, D 3031, D 4084 or D 3246, and on a weekly basis using gas detection tubes. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Upon passing quarterly ASTM H2S testing for three consecutive quarters, permittee may test on an annual basis. If a weekly or ASTM test shows noncompliance with the sulfur content requirement, quarterly ASTM testing shall resume until three consecutive quarterly tests show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

28. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-618-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF LACT TANK #T-4 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
4. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
5. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

9. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit

12. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

13. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3] Federally Enforceable Through Title V Permit

14. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

15. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

16. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 4623] Federally Enforceable Through Title V Permit

18. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as describe in this permit. [District Rule 4623] Federally Enforceable Through Title V Permit

20. Operator shall notify the District in writing at least 72 hours prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following information: 1) The PTO number and the physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) The degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) if applicable, the method to be used to dispose of the removed sludge including the methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Prior to opening the tank to allow tank cleaning, one of the following degassing procedures must be followed: 1) Exhaust VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained; 5) For free-water knockout tanks, the operator may degas the tank vapor space by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displace [District Rule 4623] Federally Enforceable Through Title V Permit
22. During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 4623] Federally Enforceable Through Title V Permit
23. To facilitate connection to an external APCO-approved vapor recovery system a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623] Federally Enforceable Through Title V Permit
24. While performing tank cleaning activities, operators may use the following cleaning agents: water, diesel, solvents with an initial boiling point of greater than 302 Fahrenheit, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams per liter VOC content or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 4623] Federally Enforceable Through Title V Permit
26. Prior to returning the tank to normal operation, the tank vapor control system shall either be reactivated and the pressure/relief valves closed, or the tank shall be filled to the maximum possible level with water or a liquid with a TVP less than 0.5 psia and the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall then be adjusted as necessary. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 4623] Federally Enforceable Through Title V Permit
28. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
29. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-621-5 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
775 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-7 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
4. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
5. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

9. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. The permittee shall keep accurate records of Reid vapor pressure, storage temperature and types of liquids stored, for a period of five years, and shall make such records available for District inspection upon request. [District Rule 4623, 6.1] Federally Enforceable Through Title V Permit

12. True vapor pressure shall be measured using Reid vapor pressure ASTM Method D323-82 modified by maintaining the hot water bath at storage temperature. Where storage temperature is above 100 degrees F true vapor pressure shall be determined by Reid vapor pressure at 100 degrees F and ARB approved calculations. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit

13. True vapor pressure of crude oil with an API (American Petroleum Institute) gravity less than 30 deg, as determined by API 2547, may be determined by Headspace Gas Chromatography using the procedures from ARB Evaluation of a Method for Determining Vapor Pressures of Petroleum Mixtures by Headspace Gas Chromatography, October 1990. [District Rule 4623, 6.2.3] Federally Enforceable Through Title V Permit

14. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

15. The efficiency of any VOC destruction device shall be measured by USEPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

16. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-625-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-3 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.6.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
3. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 3.11 and 5.6.3] Federally Enforceable Through Title V Permit
4. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
5. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

9. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

11. Tank degassing shall be accomplished by emptying the tank of organic liquid having a TVP of 0.5 psia or greater, and minimizing organic vapors in the tank vapor space by one of the following methods: 1) tank shall be degassed before commencing interior cleaning by exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) for free-water knockout tanks only, tank shall be degassed by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

12. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

13. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

14. This tank shall be in compliance with the applicable requirements of District Rule 4623 at all times during draining, degassing, and refilling the tank with an organic liquid having a TVP of 0.5 psia or greater. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

15. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

16. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

17. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

18. During sludge removal, the operator shall control emissions from the sludge receiving vessel by operating an APCO-approved vapor control device that reduces emissions of organic vapors by at least 95%. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Permittee shall only transport removed sludge in closed, liquid leak-free containers. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

20. Permittee shall store removed sludge, until final disposal, in vapor leak-free containers, or in tanks complying with the vapor control requirements of District Rule 4623. Sludge that is to be used to manufacture roadmix, as defined in District Rule 2020, is not required to be stored in this manner. Roadmix manufacturing operations exempt pursuant to District Rule 2020 shall maintain documentation of their compliance with Rule 2020, and shall readily make said documentation available for District inspection upon request. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

21. Operator shall maintain a record of all tank cleaning activities. The records should include the final details of the planned activities submitted along with the tank cleaning notification requirements specified within this permit. [District Rule 4623, 5.7.5] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

26. The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-631-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-633-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
68,502 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-634-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-635-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
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5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-636-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
68,502 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
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5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-637-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
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6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-638-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
9,408 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-639-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-640-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-690-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
42,000 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-691-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
67,242 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-692-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
67,242 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-693-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-694-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-695-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
21,822 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-696-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
21,822 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-698-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
8,652 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-699-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-700-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
150,318 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-701-10 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
75,138 GALLON FIXED ROOF STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222 (26C EFFLUENT PLANT)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-702-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
150,318 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-703-9 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
42,294 GALLON FIXED ROOF STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222 (26C EFFLUENT PLANT)

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-704-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
124,740 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-705-5 **EXPIRATION DATE:** 02/28/2006

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
83,160 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-706-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
212,100 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-707-5 **EXPIRATION DATE:** 02/28/2006

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
83,160 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-708-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,386 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
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8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-709-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-710-3 **EXPIRATION DATE:** 02/28/2006

SECTION: NW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
6,384 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-713-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE36 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-714-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
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5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-715-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-716-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SW26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
22,344 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-717-3 **EXPIRATION DATE:** 02/28/2006

SECTION: SW25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
21,882 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-839-5 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
20 UNCONTROLLED CYCLIC WELLS

PERMIT UNIT REQUIREMENTS

1. All wells authorized by this permit to operate shall be located more than 1000 feet from an existing well vent vapor recovery system operated by the company. [District Rule 4401, 4.5.1] Federally Enforceable Through Title V Permit
2. Permittee shall maintain a current well roster of all uncontrolled cyclic wells, and such roster shall be made readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-921-7 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
158 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0 (as amended December 17, 1992). [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
4. The operator shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
5. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
6. The uncontrolled VOC emissions from any well vent shall be reduced by at least 99 percent by weight or, if several steam-enhanced crude oil production well vents are connected to a vapor collection and control system, total uncontrolled VOC emissions shall be reduced by at least 99 percent. This requirement does not apply to cyclic wells located on contiguous and adjacent oil production properties with less than 10 cyclic wells owned by or under the control of a company. [District Rule 4401, 5.1 and 5.2] Federally Enforceable Through Title V Permit
7. For cyclic wells located on properties with less than 10 cyclic wells and owned by a company, the uncontrolled VOC emissions from any well vent or system of well vents connected to a single vapor collection and control device shall be reduced by at least 50 percent. Properties shall include contiguous and adjacent oil production properties owned by or under control of the company. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
8. Total number of leaks from the vapor collection and control system, including condensate handling, shall not exceed the number as allowed by Rule 4401 (as amended January 15, 1998) at any one time. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
9. Units consisting of more than 500 wells shall not exceed one leak detected for each 20 wells tested with a minimum of 50 wells tested. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
10. Operator shall affix a readily visible tag bearing the date on which a leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
11. Operator shall repair each leak within 15 calendar days of detection. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs and which is prior to any blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as a fuel. [District Rule 4401, 5.3 and 5.3.2] Federally Enforceable Through Title V Permit

13. Annual control efficiency compliance tests shall be performed on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed by source testers certified by the California Air Resources Board (CARB) during June, July, August or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the annual testing requirements of this condition if the vapor control system does not exhaust to atmosphere or if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless open flare, and the source's Operating Permit contains adequate periodic monitoring to ensure the source meets 99% control efficiency. [District Rule 4401, 5.1, 5.2 and 6.2.1] Federally Enforceable Through Title V Permit

14. The control efficiency of the vapor collection and control system used to control VOC emissions from steam enhanced crude oil production well shall be determined by mass balance based on most stringent of a source test, USEPA approved emission factors, or Air Pollution (AP)-42 emission factors for components and number of components; and the efficiency of destruction devices determined by USEPA Method 18, 25, 25a, or 25b as applicable. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

15. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by CARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

16. The source shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2520, 9.4.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit

17. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. Crude oil produced from wells with vents shut in shall be handled only in production facilities equipped with District approved vapor loss prevention devices. [District Rule 4401] Federally Enforceable Through Title V Permit

21. Permittee shall maintain a current listing of all steam enhanced wells with closed-casing vents, and shall make such records available for District inspection upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-923-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2,000 BARREL DRAIN TANK, #T-905C, VENTED TO VAPOR RECOVERY SYSTEM SHARED WITH S-1128-222, AT SECTION 26C OIL PLANT

PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201 & 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Operator shall keep a record of liquids stored in each container, API gravity, storage temperature, and the true vapor pressures of such liquids. [District Rules 4623, 6.1 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

14. Permittee shall conduct API gravity, true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1. of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623] Federally Enforceable Through Title V Permit

15. The API gravity and TVP shall be determined using District Rule 4623 test methods. [District Rule 1070] Federally Enforceable Through Title V Permit

16. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit

17. Instead of testing each fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1. through 6.2.1.1.5 of Rule 4623 are met. [District Rule 2520] Federally Enforceable Through Title V Permit

18. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

19. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

20. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

21. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

24. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

26. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

27. Prior to opening the tank to allow tank cleaning, one of the following procedures must be followed: 1) Prior to venting the tank to the atmosphere, operate the tank vapor recovery system/vapor control device for at least 24 hours such that it collects the tank vapors; or 2) use liquid displacement, conducted using a liquid with a TVP less than 0.5 psia, or conducted by floating the oil pad off a crude oil tank by restricting the outflow of water, such that 90% of the tank liquid capacity is displaced; or 3) Vent the tank to a vapor control device/vapor recovery system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V/Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

28. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

29. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

33. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

34. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

37. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

38. All noncondensible vapors collected shall be routed to equipment specified in S-1128-222. [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-934-6 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS

PERMIT UNIT REQUIREMENTS

1. Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)] Federally Enforceable Through Title V Permit
2. Demonstration of compliance with the visible emissions limit of this permit shall be conducted at least annually, using EPA Method 22. The observation period shall be 2 hours. [40 CFR 60.18(f)(1)] Federally Enforceable Through Title V Permit
3. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. Flares shall only be used with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted; or with the net heating value of the gas being combusted being 300 Btu/scf or greater if the flare is air-assisted or steam-assisted. [40 CFR 60.18 (c)(3)] Federally Enforceable Through Title V Permit
6. The net heating value of the gas being combusted in a flare shall be calculated annually, pursuant to 40 CFR 60.18(f)(3) and using EPA Method 18, ASTM D1946, and ASTM D2382. [40 CFR 60.18 (f)(3-6)] Federally Enforceable Through Title V Permit
7. Nonassisted and steam-assisted flares shall be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than 60 ft/sec, except as provided in 40 CFR 60.18 (c)(4)(ii) and (iii). [40 CFR 60.18 (c)(4)(i)] Federally Enforceable Through Title V Permit
8. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), equal to or greater than 60 ft/sec, but less than 400 ft/sec if the net heating value of the gas being combusted is greater than 1,000 Btu/scf. [40 CFR 60.18 (c)(4)(ii)] Federally Enforceable Through Title V Permit
9. Nonassisted and steam-assisted flares may be operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18 (f)(4), less than the velocity, Vmax, as determined by the equation specified in paragraph 40 CFR 60.18 (f)(5), and less than 400 ft/sec. [40 CFR 60.18 (c)(4)(iii)] Federally Enforceable Through Title V Permit
10. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18 (f)(4)] Federally Enforceable Through Title V Permit
11. Flares shall be operated with a flame present at all times, and kept in operation when emissions may be vented to them. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18 (c)(2), 60.18 (e), and 60.18 (f)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. If flare is not operating, gas shall not be vented to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Gas flow rate to flare, except pilot fuel, shall not exceed 140,400 dscf per day. [District NSR Rule]
14. Gas flow rate to flare, except pilot fuel, shall not exceed 2,500,800 dscf per year. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Pilot fuel gas flow rate shall not exceed 7,200 dscf per day. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Concentration of sulfur (as H2S) in gas flared shall not exceed 30,000 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Permittee shall determine the moisture content of flared gas during an actual flaring episode at least once each calendar quarter in which a flare episode occurs. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall determine sulfur content of gas flared at least once per year using ASTM method D3246 or double GC for H2S and mercaptans. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Emissions from flared gas shall not exceed any of the following (based on total gas combusted): PM-10: 6.4 lb/mmscf; NOx (as NO2): 54.4 lb/mmscf; VOC: 50.4 lb/mmscf; or CO: 296.0 lb/mmscf. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Emission rate from pilot gas shall not exceed any of the following: NOx (as NO2) - 68.0 lb/MMscf, VOC - 63.0 lb/MMscf, CO - 370.0 lb/MMscf, PM10 - 8.0 lb/MMscf, or SOx - 2.85 lb/MMscf. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Permittee shall maintain daily and annual records of pilot fuel gas flow volumes, daily and annual records of wet & calculated dry flared gas flow volumes, quarterly records of flared gas moisture content, and annual records of flared gas sulfur content. Records shall be kept for at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-935-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,156 BBL FIXED ROOF CONSTANT LEVEL FWKO TANK (T-13) VENTED TO VAPOR RECOVERY SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit
24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit
25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-936-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
12,086 BBL FIXED ROOF CONSTANT LEVEL FWKO TANK (T-25) VENTED TO VAPOR RECOVERY SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-938-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
380 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL SURGE TANK (T-18) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
8. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
9. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

15. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

17. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

18. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

20. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

21. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank and retain records for a minimum of five years in order to maintain exemption from the rule. [District Rule 4623 and NSR Rule] Federally Enforceable Through Title V Permit

24. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4 and NSR Rule] Federally Enforceable Through Title V Permit

25. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

27. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

29. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

30. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-940-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
WEMCO M-3 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
4. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this tank and associated tank vapor recovery system shall not exceed the amount specified on S-1128-248. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 2201] Federally Enforceable Through Title V Permit
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
12. Permittee shall notify the District compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Exhaust VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) For oil/water separation vessels, the operator may degas the vessel vapor space by restricting the outflow of water and floating off the oil pad, such that at least 90 percent of the vessel volume is displaced. [District Rule 2080] Federally Enforceable Through Title V Permit

15. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Within 48 hours after refilling the vessel with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator shall keep accurate records of types, storage temperature and the true vapor pressure of liquids stored. Such records shall be retained for a minimum of five years and made available by the APCO for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

29. VOC content of hydrocarbons in TEOR gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

30. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

31. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

33. The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-941-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SE 8 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW NOX BURNER WITH FGR

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.05 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. During a shakedown period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, NOx emission rate shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. The shakedown period shall be concluded prior to the applicable Rule 4320 compliance deadline selected for this unit. Permittee shall maintain a record of the date of initial operation and shall make such records readily available for District inspection upon request. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
10. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22, and 4320] Federally Enforceable Through Title V Permit

12. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

13. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

25. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

26. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

27. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

32. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

35. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

39. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-949-3 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. Emissions from this engine shall not exceed any of the following limits: 3.7 g-NOx/bhp-hr , 0.1 g-PM10/bhp-hr, 0.5 g-CO/bhp-hr, or 1.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [17 CCR 93115]
10. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit
11. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

13. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

14. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-950-0 **EXPIRATION DATE:** 02/28/2006

SECTION: SW 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
UP TO 14' O.D. X 61' (1670 BBL) CRUDE OIL INLET GAS SEPARATOR VESSEL V-2A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1128-128

PERMIT UNIT REQUIREMENTS

1. Vapors from separator vessel V-2A shall be routed to casing collection system S-1128-128. [District Rule 2201] Federally Enforceable Through Title V Permit
2. VOC content of total organic compounds in gas processed by separator vessel V-2A shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Permittee shall determine VOC content of total organic compounds in gas within 60-days of startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emissions rate, calculated using EPA Publication 453/R-95-017," Table 2-4 Oil and Gas Operations Average Emission Factors, from the total number of components in vapor service dedicated to separator vessel V-2A shall not exceed 7.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The fugitive VOC emission limit listed above does not include components in liquid service, or existing production handling and flow measurement facilities. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All vapor service piping, fittings, and valves dedicated to separator vessel V-2A or associated with the vessel's vapor recovery system shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit
7. All vapor service piping, fittings, and valves dedicated to separator vessel V-2A or associated with the vessel's vapor recovery system shall be maintained in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. A facility operator, upon detection of a leaking component, shall affix to that component not immediately repaired a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected, and found to be in compliance with the requirements of this permit. [District Rules 220] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall maintain accurate records of fugitive inspection component counts and calculated fugitive emissions using EPA Protocol for Equipment Leak Emission Estimates Table 2-4 "Oil and Gas Production Operations Average Emission Factors" (November 1995). Permittee shall make records of component counts, screening values, and calculations readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain accurate records of VOC content of total organic compounds in gas and shall make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-951-2 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. Emissions from this engine shall not exceed any of the following limits: 3.7 g-NOx/bhp-hr , 0.5 g-CO/bhp-hr, or 1.14 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. Emissions from this IC engine shall not exceed 0.1 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rule 2201 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [17 CCR 93115]
11. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, 4.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

12. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit

13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

14. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-952-1 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
30.0 MMBTU/HR NATURAL GAS, PROPANE, OR BUTANE-FIRED STRUTHERS STEAM GENERATOR S/N 75/76-37153-2 WITH NORTH AMERICAN BURNER MODEL 4211-30-LE AND O2 CONTROLLER AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (ALSO PERMITTED AS S-2010-200 IN LOW SS)

PERMIT UNIT REQUIREMENTS

1. Permittee shall comply with all notification and recordkeeping requirements of 40 CFR 60.7 a (1)(3) and (b). [District Rule 4001] Federally Enforceable Through Title V Permit
2. This steam generator is authorized to operate at CUSA's light oil western stationary source (LOWSS) as permit S-2010-200 or CUSA's heavy oil western stationary source as permit S-1128-952. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The District shall be notified at least 7 days prior to each transfer between District approved locations, giving the exact location of the move. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Production from wells thermally enhanced by this steam generator shall be routed only to existing vapor controlled tanks. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Total sulfur content of fuel combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201and 4406] Federally Enforceable Through Title V Permit
6. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
7. The duration of each startup and shutdown period shall not exceed 2.0 hours. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
8. Except during startup and shutdown emission rates shall not exceed any of the following: PM10: 0.0076 lb/MMBTU, NOx (as NO2): 12 ppmv @ 3% O2 or 0.014 lb/MMBTU, VOC: 0.0055 lb/MMBTU, or CO: 50 ppmv @ 3% O2. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. Source testing for NOx and CO for each approved fuel shall be conducted within 60 days of first firing on fuel. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
11. Source testing to demonstrate compliance with NOx and CO emission limits shall be demonstrated not less than once every 36 months if compliance is demonstrated on two consecutive annual compliance tests. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
12. If permittee fails any compliance demonstration for NOx and/or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

15. The following test methods shall be used: NOx (lb/MMBtu) - EPA Method 19, NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, PM10 - EPA Method 5, and gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 2520, 9.3.2, 4305, and 4306] Federally Enforceable Through Title V Permit

16. Compliance source testing shall be conducted under conditions representative of normal operation. [District Rule 1081] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using an approved portable emission analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule1081] Federally Enforceable Through Title V Permit

22. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

25. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 240 or D 2382 for liquid hydrocarbon fuels; ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2, 4305, 6.2.1, and 4306] Federally Enforceable Through Title V Permit

29. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

30. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit

31. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit

32. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

34. Unit shall not be located within 1000 ft of a school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit

35. Formerly S-1128-927.

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-958-1 **EXPIRATION DATE:** 02/28/2006

SECTION: SW 31 **TOWNSHIP:** 29 S **RANGE:** 22 E

EQUIPMENT DESCRIPTION:
15,000 GALLON WEMCO M-4 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
2. VOC content of total hydrocarbons in gas processed by the vapor control system, upstream of compressors, shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The vessel shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
4. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this vessel and associated vessel vapor control system shall not exceed the amount specified on S-1128-248. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The vessel shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 2201] Federally Enforceable Through Title V Permit
7. Any vessel gauging or sampling device on a tank vented to the vapor control system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
12. Permittee shall notify the District compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Exhaust VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) For oil/water separation vessels, the operator may degas the vessel vapor space by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the vessel volume is displaced. [District Rule 2080] Federally Enforceable Through Title V Permit

15. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Within 48 hours after refilling the vessel with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator shall keep accurate records of types, storage temperature and the true vapor pressure of liquids stored. Such records shall be retained for a minimum of five years and made available by the APCO for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this vessel at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

29. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

30. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

31. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

33. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-974-1 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-975-1 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-976-1 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-977-1 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

PERMIT UNIT REQUIREMENTS

1. This tank is authorized to operate at CUSA's heavy oil western stationary source (HOWSS) which includes facilities S-1128, S-1129 and S-1141. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The equipment shall not be located within 1,000 feet of the outer boundary of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings and properly maintained in good operating order in accordance with the manufacturer's instructions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
10. For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Tank liquid throughput shall not exceed 750 barrels per day and 91,250 barrels per year. [District Rule 2201] Federally Enforceable Through Title V Permit
12. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
13. Permittee shall notify the APCO in writing at least three (3) days prior to performing the first interior tank cleaning activity at a particular location; no notification is required for subsequent cleaning activities at that location. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank, 2) the date and time that tank cleaning activities will begin, and 3) the method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
14. This tank shall not be required to de-gas before commencing cleaning activities. All other applicable requirements shall be complied with before, during, and after tank cleaning activities. [District Rule 2080] Federally Enforceable Through Title V Permit
15. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Permittee shall maintain records of dates of start and completion dates/times of vessel cleaning activities, and methods of cleaning used. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, API gravity and throughput. [District Rules 2201and 4623] Federally Enforceable Through Title V Permit
19. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 2520 and 4623] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-978-0 **EXPIRATION DATE:** 02/28/2006

SECTION: SW 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
250 HORSEPOWER CUMMINS MODEL QSB7-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (31X CONTROL ROOM, CYMRIC OILFIELD)

PERMIT UNIT REQUIREMENTS

1. This engine shall be EPA/CARB TIER-3 certified. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115, and CH&SC 41701.6] Federally Enforceable Through Title V Permit
9. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
10. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702] Federally Enforceable Through Title V Permit
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
12. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
13. Emissions from this IC engine shall not exceed any of the following limits: 2.83 g-NOx/bhp-hr, 0.746 g-CO/bhp-hr, or 0.149 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Emissions from this IC engine shall not exceed 0.082 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit

15. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit

16. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

17. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

ATTACHMENT C

Detailed Facility List

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

CHEVRON USA INC	FAC #:	**S 1128**	TYPE:	**TitleV**	EXPIRE ON:	02/28/2006
HEAVY OIL WESTERN STATIONARY SOURCE	STATUS:	**A**	TOXIC ID:	**50301**	AREA:	101 / 72
KERN COUNTY	TELEPHONE:	**6616547000**			INSP. DATE:	03/12

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-4-32	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43009-74 WITH FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-5-30	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #51 DIS# 43005-74 WITH NORTH AMERICAN GLE LOW-NOX BURNER, FGR, BLOWER MOTOR AND VARIABLE SPEED DRIVE (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-6-16	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-1-26C, DIS# 43011-74) WITH SO2 SCRUBBER
S-1128-7-4	8,400,000 BTU/HR	3020-02 G	1	815.00	815.00	A	8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #1
S-1128-8-6	8,400,000 BTU/HR	3020-02 G	1	815.00	815.00	A	8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #2 WITH CLEAVER BROOKS MODEL #CB-700-200-15 LOW NOX BURNER
S-1128-11-17	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-2-26C, DIS# 43015-78) WITH SO2 SCRUBBER
S-1128-14-7	27,500,000 Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-1
S-1128-15-36	62,500 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-1-2F, DIS# 43002-81) WITH SO2 SCRUBBER AND LOW PRESSURE FUEL INDUCED RECIRCULATION - TAFT (GROUP II)
S-1128-16-25	62,500 kBtu/hr burner	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 LOW NOX BURNER AND FGR (#50-2 DIS #43003-81)
S-1128-17-28	62,500,000 Btu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-3 DIS# 43004-81 WITH FGR
S-1128-18-28	62,500 KBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-4-2F WITH SO2 SCRUBBER, NORTH AMERICAN GLE MAGNA-FLAME ULTRA-LOW NOX BURNER AND FGR - TAFT (GROUP II)
S-1128-19-24	62,500 kBtu/hr burner	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (#50-5 DIS #43006-81) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR)

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-21-33	62,500,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 90, DIS# 43010-80) WITH A NORTH AMERICAN GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-25-44	69.0 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 62, DIS# 41764-06) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-26-29	62,500,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 63, DIS# 43003-79) WITH FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-27-30	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #53 DIS# 43010-78 WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-28-23	62,500 KBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #52 DIS# 43014-78 WITH FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-29-40	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 55, DIS# 41752-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, SHARED SO2 SCRUBBER WITH S-1128-30, -31, -32, -33, AND -34 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST
S-1128-30-39	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 56, DIS # 41753-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST
S-1128-31-35	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 57, DIS# 41763-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST
S-1128-32-40	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	ONE 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 58, DIS# 41751-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST
S-1128-33-43	62,500 kBtu/hr steam generator	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 59, DIS# 41758-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-34-43	62,500 kBtu/hr steam generator	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 60, DIS# 41759-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST
S-1128-35-36	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 89) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR
S-1128-36-22	62,500 kBtu/hr burner	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C)
S-1128-38-23	62,500 kBtu/hr burner	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (#94)
S-1128-44-7	27,500 KBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-3
S-1128-45-9	27,500 KBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-4
S-1128-48-26	62,500 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-4-26C) EQUIPPED WITH A NORTH AMERICAN MAGNAFLAME GLE ULTRA-LOW NOX BURNER WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION
S-1128-56-16	62,500 KBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-5-26C, DIS# 43303-80) WITH SO2 SCRUBBER
S-1128-57-15	62,500 kBtu/hr burner	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 LOW NOX BURNER AND FGR (#50-6 DIS #43012-81)
S-1128-58-16	62,500 KBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-7 DIS# 43013-81 WITH FGR
S-1128-61-3	27,500,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-2
S-1128-66-26	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 82, DIS# 26753-80) WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE FOR BLOWER MOTOR, AND O2 ANALYZER FOR FGR CONTROL
S-1128-68-18	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 76, DIS# 43016-82) NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 CONTROLLER - CYMRIC

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-75-23	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 91, DIS# 43001-85) WITH NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-76-19	62,500 kBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 93, DIS# 37425-2) WITH A NORTH AMERICAN GLE MAGNA-FLAME LOW-NOX BURNER, FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 ANALYZER (PERMITTED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-77-22	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 92, DIS# 43003-85) WITH A NORTH AMERICAN MODEL MAGNA FLAME GLE-4231 LOW NOX BURNER AND A WITH FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-79-18	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #95 (DIS#43007-85) EQUIPPED WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-80-20	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM (CUSA ID# 96) - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD
S-1128-111-20	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 72) WITH A NORTH AMERICAN MODEL #4231 G-LE MAGNA FLAME LOW-NOX BURNER WITH VARIABLE FREQUENCY DRIVE FOR THE BLOWER MOTOR, FGR, AN O2 ANALYZER FOR FGR CONTROL, AND APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-112-18	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FLUE GAS RECIRCULATION (CUSA ID# 73) APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS
S-1128-113-21	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 97) WITH A NORTH AMERICAN MAGNA-FLAME GLE LOW-NOX BURNER AND FGR - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD
S-1128-116-59	146 wells	3020-09 A	146	9.34	1,363.64	A	TEOR OPERATION WELL VENT VR SYSTEM #CC-36W #1 SERVING 146 STEAM DRIVE WELLS AND 6 AUTOMATIC WELL TEST VESSELS W/ VAPOR PIPING TO SCRUBBED STEAM GENERATORS, DOGGR APPROVED DISPOSAL WELLS(S,) SULFEROX H2S REMOVAL PLANT, 0.34 MMBTU/HR KALDAIR FLARE (FLARE SHARED W/ '-128, '-130, '-144, '-248, & '-383) 460 MMBTU/HR JOHN ZINK MODEL #EEF-LHLS-24 AIR ASSISTED EMERGENCY FLARE
S-1128-118-18	628 wells with vapor recovery	3020-09 A	628	9.34	5,865.52	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 628 STEAM ENHANCED WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-125-20	153 wells	3020-09 A	153	9.34	1,429.02	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 153 STEAM ENHANCED WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND VAPOR PIPING TO STEAM GENERATORS S-1128-15, S-1128-18, AND VAPOR PIPING TIED INTO VAPOR RECOVERY LINE FROM SYSTEM LISTED UNDER PERMIT S-1128-617
S-1128-128-16	60 wells	3020-09 A	60	9.34	560.40	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-31X SERVING 60 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR(S), AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S)
S-1128-130-15	146 Wells	3020-09 A	146	9.34	1,363.64	A	TEOR OPERATION WVVC SYSTEM CC-36W #2 SERVING 146 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED SG'S, DOGGR APPROVED DISPOSAL WELL(S), OR 5 AUTOMATIC WELL TEST VESSELS - CYMRIC
S-1128-144-9	33 WELLS	3020-09 A	33	9.34	308.22	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-5Z/6Z SERVING 33 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S) - CYMRIC
S-1128-154-29	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL/PRODUCED GAS FIRED STEAM GENERATOR (CUSA ID #14) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)
S-1128-159-21	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (CUSA ID# 18-A)
S-1128-160-5	34 WELLS	3020-09 A	34	9.34	317.56	A	THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 16 STEAM DRIVE WELLS AND 18 CYCLIC WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES
S-1128-161-8	65 VAPOR CONTROLLED WELLS	3020-09 A	65	9.34	607.10	A	THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 65 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES
S-1128-162-5	40 WELLS	3020-09 A	40	9.34	373.60	A	THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 40 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-183-14	138,600 GALLONS	3020-05 E	1	246.00	246.00	A	3,300 BBL FIXED ROOF CRUDE OIL WASH TANK #T-1 WITH VAPOR CONTROL SYSTEM CONSISTING OF KNOCKOUT VESSEL(S), HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S) AND VAPOR COMPRESSOR(S)
S-1128-222-12	210,000 gal	3020-05 E	1	246.00	246.00	A	5000 BBL FREE WATER KNOCK-OUT TANK #T-1 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-223, 224, 225, 226, 227, 228, 229, 701, 703, & 923, INCLUDING 561,000 BTU/HR HEAT EXCHANGER, KNOCKOUT VESSEL, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO S-1128-36 AND -48
S-1128-223-8	210,000 gal	3020-05 E	1	246.00	246.00	A	5000 BBL FREE WATER KNOCK-OUT TANK #T-2 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222
S-1128-224-8	420,000 gal	3020-05 E	1	246.00	246.00	A	10,000 BBL WASH TANK #T-3 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222
S-1128-225-9	420,000 gal	3020-05 E	1	246.00	246.00	A	10,000 BBL WASH TANK #T-4 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222
S-1128-226-8	84,000 gal	3020-05 D	1	185.00	185.00	A	2000 BBL LACT TANK #T-5 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222
S-1128-227-8	84,000 gal	3020-05 D	1	185.00	185.00	A	2000 BBL REJECT TANK #T-6 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222
S-1128-228-8	42,000	3020-05 C	1	135.00	135.00	A	1000 BBL REJECT TANK #T-7 VENTED TO VAPOR CONTROL SYSTEM SYSTEM SHARED W/S-1128-222
S-1128-229-8	15 hp	3020-01 A	1	87.00	87.00	A	WEMCO AIR FLOATATION UNIT #W-1 VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222
S-1128-230-7	138,600 GALLONS	3020-05 E	1	246.00	246.00	A	3,300 BBL FIXED ROOF CRUDE OIL WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-231-7	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF LACT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-232-7	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF LACT TANK WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-248-38	252,000 gallons	3020-05 E	1	246.00	246.00	A	6,600 BBL FIXED ROOF CRUDE OIL TANK T-24 W VAPOR CONTROL SYS SHARED W/23 PERMIT UNITS; INCLUDING HEAT EXCHANGER(S), G/L SEPARATOR(S), GAS COMPRESSORS, & GAS PIPING TO SULFEROX PLT (S-1128-116), SCRUBBED STEAM GENERATORS OR DOGGR APPROVED DISPOSAL WELLS
S-1128-250-7	210,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	5,000 BBL FIXED ROOF STORAGE TANK (T-41) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-262-9	21,000 GALLON TANK	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-35) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-263-9	21,000 GALLON TANK	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-278-9	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF SUMP REPLACEMENT TANK #T-154 WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-297-6	100.5 hp electric motors	3020-01 D	1	314.00	314.00	A	WEMCO M-1 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP
S-1128-298-6	100.5 hp electric motors	3020-01 D	1	314.00	314.00	A	WEMCO M-2 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP
S-1128-302-5	8.4 MMBTU/HR BOILER	3020-02 G	1	815.00	815.00	A	8.4 MMBTU/HR NATURAL GAS-FIRED BOILER #3 WITH A CLEAVER BROOKS MODEL ICH84GX30S LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM
S-1128-303-4	5.23 MMBTU/HR BOILER	3020-02 G	1	815.00	815.00	A	5.23 MMBTU/HR NATURAL GAS FIRED BOILER #F-2
S-1128-305-4	375 bhp IC engine	3020-10 C	1	240.00	240.00	A	375 BHP CATERPILLAR MODEL 3406DT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1128-306-3	600 hp emergency diesel IC engine	3020-10 D	1	479.00	479.00	A	600 BHP CUMMINS MODEL KTA1965T DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1128-307-4	375 bhp IC engine	3020-10 C	1	240.00	240.00	A	375 BHP CATERPILLAR MODEL 3406DT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1128-335-2	27,500,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-6
S-1128-336-2	27,500,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-7
S-1128-337-8	27,500,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #22-5-26C WITH LOW PRESSURE FUEL INDUCED RECIRCULATION (LPFIR) - TAFT (GROUP II)
S-1128-360-7	24,000,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	24 MMBTU/HR BOILER C-139 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC
S-1128-361-6	24,000,000 BTU/HR	3020-02 H	1	1,030.00	1,030.00	A	24 MMBTU/HR BOILER C-140 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC
S-1128-366-19	2,700 kW	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# CG-1) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-367-18	2.7 MW	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# CG-2) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)
S-1128-368-18	2,700 kw electric generation	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# CG-3) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)
S-1128-369-18	2,700 kw electric generation	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# CG-4) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)
S-1128-370-21	2.7 MW Electrical Generation	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# 36W CG-1) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE WITH A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)
S-1128-371-21	2.7 MW Electrical Generation	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# 36W CG-2) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE WITH A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)
S-1128-372-20	2,700 kw	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# 36W CG-3) INCLUDING 37.6 MMBTU/HR (NOMINAL RATING) SOLAR CENTAUR GAS TURBINE ENGINE WITH WATER INJECTION AND ONE HEAT RECOVERY STEAM GENERATOR WITH A 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER WITH AMMONIA INJECTION, SELECTIVE CATALYTIC REDUCTION (SCR), AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) FOR NOX, CO AND O2
S-1128-373-20	2,700 kw	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# 36W CG-4) INCLUDING 37.6 MMBTU/HR (NOMINAL RATING) SOLAR CENTAUR GAS TURBINE ENGINE WITH WATER INJECTION AND ONE HEAT RECOVERY STEAM GENERATOR WITH A 37 MMBTU/HR DUCT BURNER (NOMINAL RATING) WITH AMMONIA INJECTION, SELECTIVE CATALYTIC REDUCTION (SCR), AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) FOR NOX, CO AND O2

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-374-12	2,700 kW	3020-08A C	1	1,533.00	1,533.00	A	DORMANT 2.7 MW COGEN FACILITY (CUSA ID# 31X CG-1) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER
S-1128-375-12	2,700 kW	3020-08A C	1	1,533.00	1,533.00	A	DORMANT 2.7 MW COGEN FACILITY (CUSA ID# 31X CG-2) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STURTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER
S-1128-376-12	2,700 kW	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# 6Z CG-1) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) WITH AMMONIA INJECTION SYSTEM, A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)
S-1128-377-12	2,700 kW	3020-08A C	1	1,533.00	1,533.00	A	2.7 MW COGEN FACILITY (CUSA ID# 6Z CG-2) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) WITH AMMONIA INJECTION SYSTEM, A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)
S-1128-385-47	570 wells with vapor recovery	3020-09 A	570	9.34	5,323.80	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-1Y SERVING 570 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, GAS FLOW AND TEMPERATURE INDICATORS, AUTOMATIC WELL TEST STATIONS, AND GAS PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED STEAM GENERATORS, OR DOGGR APPROVED DISPOSAL WELL(S)
S-1128-390-9	797 Wells	3020-09 B	797	9.34	1,400.00	A	797 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS
S-1128-400-8	420,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF FWKO TANK (T-11) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-401-8	420,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF FWKO TANK (T-12) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-402-10	15,000 GALLON TANK	3020-05 B	1	93.00	93.00	A	360 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL STORAGE TANK (T-19) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-404-7	277,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	6,600 BBL FIXED ROOF WASH TANK (T-21) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-405-7	277,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	6,600 BBL FIXED ROOF WASH TANK (T-22) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-406-7	420,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF WASH TANK (T-23) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-407-7	210,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	5,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-40) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-409-6	214,326 GALLONS	3020-05 E	1	246.00	246.00	A	214,326 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-411-7	277,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	6,600 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-31) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-412-7	277,000 GALLON TANK	3020-05 E	1	246.00	246.00	A	6,600 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-32) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-415-3	5,712 GALLONS	3020-05 B	1	93.00	93.00	A	5,712 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-416-3	7,602 GALLONS	3020-05 B	1	93.00	93.00	A	7,602 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-425-3	11,000 GALLONS	3020-05 B	1	93.00	93.00	A	11,004 GALLON FIXED ROOF DRAIN TANK TS #5
S-1128-426-3	11,004 GALLONS	3020-05 B	1	93.00	93.00	A	11,004 GALLON FIXED ROOF DRAIN TANK TS #7
S-1128-427-3	11,004 GALLONS	3020-05 B	1	93.00	93.00	A	11,004 GALLON FIXED ROOF DRAIN TANK TS #6
S-1128-428-3	11,004 GALLONS	3020-05 B	1	93.00	93.00	A	11,004 GALLON FIXED DRAIN TANK TS #4
S-1128-431-3	43,428 GALLONS	3020-05 C	1	135.00	135.00	A	43,428 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-435-3	211,596 GALLONS	3020-05 E	1	246.00	246.00	A	211,596 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-437-3	4,746 GALLONS	3020-05 A	1	75.00	75.00	A	4,746 GALLON FIXED GUAGE TANK GS #2
S-1128-438-3	4,746 GALLONS	3020-05 A	1	75.00	75.00	A	4,746 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-455-3	22,008 GALLONS	3020-05 C	1	135.00	135.00	A	22,008 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-456-3	33,600 GALLONS	3020-05 C	1	135.00	135.00	A	33,600 GALLON FIXED ROOF CRUDE OIL STORAGE TANK
S-1128-526-3	43,428 GALLONS	3020-05 C	1	135.00	135.00	A	43,428 GALLON FIXED ROOF STORAGE TANK
S-1128-529-3	4,746 GALLONS	3020-05 A	1	75.00	75.00	A	4,746 GALLON FIXED ROOF STORAGE TANK
S-1128-530-3	43,428 GALLONS	3020-05 C	1	135.00	135.00	A	43,428 GALLON FIXED ROOF STORAGE TANK
S-1128-536-3	22,008 GALLONS	3020-05 C	1	135.00	135.00	A	22,008 GALLON FIXED ROOF STORAGE TANK
S-1128-540-3	11,004 GALLONS	3020-05 B	1	93.00	93.00	A	11,005 GALLON FIXED ROOF STORAGE TANK
S-1128-542-3	11,004 GALLONS	3020-05 B	1	93.00	93.00	A	11,004 GALLON FIXED ROOF STORAGE TANK
S-1128-546-3	82,320 GALLONS	3020-05 D	1	185.00	185.00	A	82,320 GALLON FIXED ROOF STORAGE TANK

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-548-3	82,320 GALLONS	3020-05 D	1	185.00	185.00	A	82,320 GALLON FIXED ROOF STORAGE TANK
S-1128-588-3	21,126 GALLONS	3020-05 C	1	135.00	135.00	A	21,126 GALLON FIXED ROOF STORAGE TANK
S-1128-600-3	41,622 GALLONS	3020-05 C	1	135.00	135.00	A	41,622 GALLON FIXED ROOF STORAGE TANK
S-1128-605-8	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK #T-5 WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-606-3	5,292 GALLONS	3020-05 B	1	93.00	93.00	A	5,292 GALLON FIXED ROOF STORAGE TANK
S-1128-607-3	56,952 GALLONS	3020-05 D	1	185.00	185.00	A	56,952 GALLON FIXED ROOF STORAGE TANK
S-1128-608-8	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF WASTE WATER TANK #T-158B WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-609-8	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF WASTE WATER TANK #T-158A WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183
S-1128-610-3	59,178 GALLONS	3020-05 D	1	185.00	185.00	A	59,178 GALLON FIXED ROOF STORAGE TANK
S-1128-617-8	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	3000 BBL FIXED ROOF PRODUCED WATER TANK #T-6 WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-618,-620,-621,-622,-623, AND -625, BAKER PETROLITE SULFASCRUB MODEL HSW 700 H2S SCAVENGING SYSTEM, AND INCLUDING VAPOR PIPING TO DISTRICT-APPROVED DISPOSAL OPTIONS AS IDENTIFIED IN THIS PERMIT
S-1128-618-9	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF LACT TANK #T-4 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617
S-1128-621-5	31,710 GALLONS	3020-05 C	1	135.00	135.00	A	775 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-7 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617
S-1128-622-6	138,600 GALLONS	3020-05 E	1	246.00	246.00	A	3,300 BBL FIXED ROOF PETROLEUM WASH TANK #T-2 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617
S-1128-623-6	126,840 GALLONS	3020-05 E	1	246.00	246.00	A	3,020 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-1 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617
S-1128-625-8	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-3 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617
S-1128-631-3	21,126 GALLONS	3020-05 C	1	135.00	135.00	A	21,126 GALLON FIXED ROOF STORAGE TANK
S-1128-633-3	68,502 GALLONS	3020-05 D	1	185.00	185.00	A	68,502 GALLON FIXED ROOF STORAGE TANK
S-1128-634-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-635-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-636-3	68,502 GALLONS	3020-05 D	1	185.00	185.00	A	68,502 GALLON FIXED ROOF STORAGE TANK
S-1128-637-3	21,126 GALLONS	3020-05 C	1	135.00	135.00	A	21,126 GALLON FIXED ROOF STORAGE TANK
S-1128-638-3	9,408 GALLONS	3020-05 B	1	93.00	93.00	A	9,408 GALLON FIXED ROOF STORAGE TANK

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-639-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-640-3	21,126 GALLONS	3020-05 C	1	135.00	135.00	A	21,126 GALLON FIXED ROOF STORAGE TANK
S-1128-690-3	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	42,000 GALLON FIXED ROOF STORAGE TANK
S-1128-691-3	67,242 GALLONS	3020-05 D	1	185.00	185.00	A	67,242 GALLON FIXED ROOF STORAGE TANK
S-1128-692-3	67,242 GALLONS	3020-05 D	1	185.00	185.00	A	67,242 GALLON FIXED ROOF STORAGE TANK
S-1128-693-3	22,344 GALLONS	3020-05 C	1	135.00	135.00	A	22,344 GALLON FIXED ROOF STORAGE TANK
S-1128-694-3	22,344 GALLONS	3020-05 C	1	135.00	135.00	A	22,344 GALLON FIXED ROOF STORAGE TANK
S-1128-695-3	21,822 GALLONS	3020-05 C	1	135.00	135.00	A	21,822 GALLON FIXED ROOF STORAGE TANK
S-1128-696-3	21,822 GALLONS	3020-05 C	1	135.00	135.00	A	21,822 GALLON FIXED ROOF STORAGE TANK
S-1128-698-3	8,652 GALLONS	3020-05 B	1	93.00	93.00	A	8,652 GALLON FIXED ROOF STORAGE TANK
S-1128-699-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-700-3	150,318 GALLONS	3020-05 E	1	246.00	246.00	A	150,318 GALLON FIXED ROOF STORAGE TANK
S-1128-701-10	75,138 gal	3020-05 D	1	185.00	185.00	A	75,138 GALLON FIXED ROOF STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222 (26C EFFLUENT PLANT)
S-1128-702-3	150,318 GALLONS	3020-05 E	1	246.00	246.00	A	150,318 GALLON FIXED ROOF STORAGE TANK
S-1128-703-9	42,294 gal	3020-05 C	1	135.00	135.00	A	42,294 GALLON FIXED ROOF STORAGE TANK VENTED TO VAPOR CONTROL SYSTEM SHARED WITH S-1128-222 (26C EFFLUENT PLANT)
S-1128-704-3	124,740 GALLONS	3020-05 E	1	246.00	246.00	A	124,740 GALLON FIXED ROOF STORAGE TANK
S-1128-705-5	83,160 GALLONS	3020-05 D	1	185.00	185.00	A	83,160 GALLON FIXED ROOF STORAGE TANK
S-1128-706-3	212,100 GALLONS	3020-05 E	1	246.00	246.00	A	212,100 GALLON FIXED ROOF STORAGE TANK
S-1128-707-5	83,160 GALLONS	3020-05 D	1	185.00	185.00	A	83,160 GALLON FIXED ROOF STORAGE TANK
S-1128-708-3	22,386 GALLONS	3020-05 C	1	135.00	135.00	A	22,386 GALLON FIXED ROOF STORAGE TANK
S-1128-709-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-710-3	6,384 GALLONS	3020-05 B	1	93.00	93.00	A	6,384 GALLON FIXED ROOF STORAGE TANK
S-1128-713-3	22,344 GALLONS	3020-05 C	1	135.00	135.00	A	22,344 GALLON FIXED ROOF STORAGE TANK
S-1128-714-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-715-3	43,764 GALLONS	3020-05 C	1	135.00	135.00	A	43,764 GALLON FIXED ROOF STORAGE TANK
S-1128-716-3	22,344 GALLONS	3020-05 C	1	135.00	135.00	A	22,344 GALLON FIXED ROOF STORAGE TANK
S-1128-717-3	21,882 GALLONS	3020-05 C	1	135.00	135.00	A	21,882 GALLON FIXED ROOF STORAGE TANK

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-839-5	20 WELLS	3020-09 A	20	9.34	186.80	A	20 UNCONTROLLED CYCLIC WELLS
S-1128-921-7	158 Wells	3020-09 B	158	9.34	1,400.00	A	158 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS
S-1128-923-7	84,000 gal	3020-05 D	1	185.00	185.00	A	2,000 BARREL DRAIN TANK, #T-905C, VENTED TO VAPOR RECOVERY SYSTEM SHARED WITH S-1128-222, AT SECTION 26C OIL PLANT
S-1128-934-6	4.98 MMBtu/hr	3020-02 F	1	607.00	607.00	A	4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS
S-1128-935-9	426,500 GALLON TANK	3020-05 E	1	246.00	246.00	A	10,156 BBL FIXED ROOF CONSTANT LEVEL FWKO TANK (T-13) VENTED TO VAPOR RECOVERY SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-936-9	507,500 GALLON TANK	3020-05 F	1	301.00	301.00	A	12,086 BBL FIXED ROOF CONSTANT LEVEL FWKO TANK (T-25) VENTED TO VAPOR RECOVERY SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-938-6	15,960 GALLON TANK	3020-05 B	1	93.00	93.00	A	380 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL SURGE TANK (T-18) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)
S-1128-940-6	16,000 gal storage at a "Large Producer"	3020-05 B	1	93.00	93.00	A	WEMCO M-3 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP
S-1128-941-8	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW NOX BURNER WITH FGR
S-1128-949-3	470 bhp IC engine	3020-10 D	1	479.00	479.00	A	470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1128-950-0	50,000 to 100,000 gallons	3020-05 D	1	185.00	185.00	A	UP TO 14' O.D. X 61' (1670 BBL) CRUDE OIL INLET GAS SEPARATOR VESSEL V-2A VENTED TO VAPOR CONTROL SYSTEM LISTED ON S-1128-128
S-1128-951-2	470 bhp IC engine	3020-10 D	1	479.00	479.00	A	470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1128-952-1	Billed under S-2010-200	999-99	1	0.00	0.00	A	30.0 MMBTU/HR NATURAL GAS, PROPANE, OR BUTANE-FIRED STRUTHERS STEAM GENERATOR S/N 75/76-37153-2 WITH NORTH AMERICAN BURNER MODEL 4211-30-LE AND O2 CONTROLLER AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (ALSO PERMITTED AS S-2010-200 IN LOW SS)
S-1128-958-1	15,000 gallon	3020-05 B	1	93.00	93.00	A	15,000 GALLON WEMCO M-4 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 (CYMRIC 31X OCP)
S-1128-974-1	21,000 gallon	3020-05 C	1	135.00	135.00	A	UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

Detailed Facility Report

For Facility=1128 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1128-975-1	21,000 gallon	3020-05 C	1	135.00	135.00	A	UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)
S-1128-976-1	21,000 gallon	3020-05 C	1	135.00	135.00	A	UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)
S-1128-977-1	21,000 gallon	3020-05 C	1	135.00	135.00	A	UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)
S-1128-978-0	250 hp	3020-10 C	1	240.00	240.00	A	250 HORSEPOWER CUMMINS MODEL QSB7-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (31X CONTROL ROOM, CYMRIC OILFIELD)

Number of Facilities Reported: 1

ATTACHMENT D

Current District Rule SIP Comparisons

Comparison of the latest amended version (amended June 18, 2009) of District Rule 4311 and the current SIP approved version, adopted June 20, 2002

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
APPLICABILITY		
This rule is applicable to operations involving the use of flares.	X	X
DEFINITIONS		
Air-Assisted Flare: a combustion device where forced air is injected to promote turbulence for mixing and to provide combustion air.	X	X
Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).		X
Air Resources Board (ARB): as defined in Rule 1020 (Definitions).		X
British Thermal Unit (Btu): the amount of heat required to raise the temperature of one pound of water from 59°F to 60°F at one atmosphere.		X
Calendar Day: any day starting at twelve o'clock AM and ending at 11:59 PM.		X
Coanda Effect Flare: A flare in which the high pressure flare gas flows along a curved surface □nspiriting air into the gas to promote combustion.		X
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable event beyond the control of the operator. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.	X	
Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not quality as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.		X
Enclosed Flare: a flare composed of multiple gas burners that are grouped in an enclosure; and are staged to operate at a	X	X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
wide range of flow rates.		
EPA: United States Environmental Protection Agency.		X
Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.		X
Flare: a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.	X	X
Flare Event: any intentional or unintentional combustion of vent gas in a flare. The flare event ends when the flow velocity drops below 0.12 feet per second or when the operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the APCO in the Flare Monitoring and Recording Plan. For a flare event that continues for more than one calendar day, each calendar day or venting of gases shall constitute a separate flare event.		X
Flare Gas: gas burned in a flare.	X	X
Flare Minimization Plan (FMP): a document intended to meet the requirements of Section 6.5 of this Rule.		X
Flare Monitoring System: all flare monitoring and recording equipment used for the determination of flare operating parameters. Flare monitoring and recording equipment includes, but is not limited to, sample systems, transducers, transmitters, data acquisition equipment, data recording equipment, and video monitoring equipment and video recording equipment.		X
Flexigas: a low BTU fuel gas produced by gasifying coke produced in a fluid-bed Coker. Due to the air used in the gasifying process, Flexigas is approximately 50% nitrogen.		X
Gaseous Fuel: any gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuels include produced gas, pilot gas and, when burned, purge gas.	X	X
Major Source: as defined in Rule 2201 (New and Modified Stationary Source Review Rule).	X	
MMBtu: million British thermal units.		X

District Rule 4311 Requirements	Adopted June 20, 2002	Amended June 18, 2009
Non-Assisted Flare: a combustion device without any auxiliary provision for enhancing the mixing of air into its flame. This definition does not include those flares, that by design, provide excess air at the flare tip.	X	X
Nox: any nitrogen oxide compounds	X	X
Open Flare: a vertically or horizontally oriented open pipe flare from which gases are released into the air before combustion is commenced.	X	X
Operator: includes, but not limited to, any person who owns, leases, supervises, or operates a facility.		X
Petroleum Refinery: a facility that processes petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911, Petroleum Refining. For the purpose of this rule, all portions of the petroleum refining operation, including those at non-contiguous locations operating flares, shall be considered as one petroleum refinery.		X
Pilot: an auxiliary burner used to ignite the vent gas routed to a flare.		X
Pilot Gas: the gas used to maintain the presence of a flame for ignition of vent gases.		X
Planned Flaring: a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. The operation of a flare for the purpose of performing equipment maintenance provided it does not exceed 200 hours per calendar year, or during compliance source testing or visible emission inspections is not considered planned flaring. Planned flaring includes, but is not limited to, the following flaring activities: Oil or gas well tests, well related work, tests ordered by a regulatory agency. Equipment depressurization for maintenance purposes. Equipment start-up or shutdown. Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists. Flaring of off-specification gas (i.e. non PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency.	X	
Planned Flaring: a flaring operation that constitutes a		X

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designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following flaring activities: Oil or gas well tests, well related work, tests ordered by a regulatory agency. Equipment depressurization for maintenance purposes. Equipment start-up or shutdown. Flaring of gas at production sources where no gas handling, gas injection or gas transmission facilities exists. Flaring of off-specification gas (i.e. non-PUC quality gas), unless the operator can demonstrate that the gas must be flared for engineering or safety reasons, e.g., under emergency. The operation of a flare for the purpose of performing equipment maintenance.		
Prevention Measure: a component, system, procedure, or program that will minimize or eliminate flaring.		X
Public Utilities Commission (PUC) Quality Gas: any gaseous fuel, gas containing fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five grains of total sulfur per one hundred (100) standard cubic feet. PUC quality gas shall also mean high methane (at least 80 % by volume) gas as specified in PUC's General Order 58-A.	X	X
Purge Gas: Nitrogen, carbon dioxide, liquefied petroleum gas, or natural gas, any of which can be used to maintain a non-explosive mixture of gases in the flare header or provide sufficient exit velocity to prevent any regressive flame travel back into the flare header.	X	X
Refinery Fuel Gas: a combustible gas, which is a by-product of the refinery process.		X
Reportable Flaring Event: any flaring where more than 500,000 standard cubic feet of vent gas is flared per calendar day, or where sulfur oxide emissions are greater than 500 pounds per calendar day. A reportable flaring event ends when it can be demonstrated by monitoring required in Section 6.8 that the integrity of the water seal has been maintained sufficiently to prevent vent gas to the flare tip. For flares without water seals or water seal monitors as required by Section 6.8, a reportable flaring event ends when the rate of flow of vent gas falls below 0.12 feet per second.		X

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Representative Sample: a sample of vent gas collected from the location as approved for flare monitoring and analyzed utilizing test methods specified in Section 6.3.4.		X
Shutdown: the procedure by which the operation of a process unit or piece of equipment is stopped due to the end of a production run, or for the purpose of performing maintenance, repair and replacement of equipment. Stoppage caused by frequent breakdown due to poor maintenance or operator error shall not be deemed a shutdown.		X
Startup: the procedure by which a process unit or piece of equipment achieves normal operational status, as indicated by such parameters as temperature, pressure, feed rate and product quality.		X
Steam-Assisted Flare: a combustion device where steam is injected into the combustion zone to promote turbulence for the mixing of the combustion air before it is introduced to the flame.		X
Thermal oxidizer: an enclosed or partially enclosed combustion device, other than a flare, that is used to oxidize combustible gases.		X
Total Organic Gases (TOG): all hydrocarbon compounds containing hydrogen and carbon with or without other chemical elements.	X	X
Turnaround: a planned activity involving shutdown and startup of one or several process units for the purpose of performing periodic maintenance, repair, replacement of equipment or installation of new equipment.		X
Vent Gas: any gas directed into a flare, excluding assisting air or steam, flare pilot gas, and any continuous purge gases.		X
Volatile Organic Compound (VOC): as defined in Rule 1020 (Definitions).	X	X
Water Seal: a liquid barrier, or seal, to prevent the passage of gas. Water seals provide a positive means of flash-back prevention in addition to enabling the upstream flare system header to operate at a slight positive pressure at all times.		X
EXEMPTIONS		
Flares operated in municipal solid waste landfills subject to the requirements of Rule 4642 (Solid Waste Disposal Sites) are exempt from this rule. Flares that are subject to the requirements of 40 CFR 60 Subpart WWW (Standards of Performance for Municipal	X	X

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Waste Landfills), or Subpart Cc (Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills) are exempt from this rule.		
Except for the recordkeeping requirements in Section 6.1.4 the requirements of this rule shall not apply to any stationary source that has the potential to emit, for all processes, less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of Nox.		X
REQUIREMENTS		
The operator of any source subject to this rule shall comply with the following requirements: Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7. The flame shall be present at all times when combustible gases are vented through the flare. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.	X	X
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.	X	
Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.		X
Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.	X	X
Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18.	X	
Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the		X

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provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares.		
Ground-level enclosed flares shall meet the following emission standards: Flares without Steam Assist Heat Release Rate: <10 MMBtu VOC limit = 0.0051 (lb/MMBtu) Nox limit = 0.0952 (lb/MMBtu) Heat Release Rate: 10-100 MMBtu VOC limit = 0.0027 (lb/MMBtu) Nox limit = 0.1330 (lb/MMBtu) Heat Release Rate: >100 MMBtu VOC limit = 0.0013 (lb/MMBtu) Nox limit = 0.5240 (lb/MMBtu) Flares with Steam Assist All Heat Release Rates VOC limit = 0.0014 (lb/MMBtu) as TOG Nox limit = 0.068 (lb/MMBtu)	X	X
Flare Minimization Plan Effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.		X
Petroleum Refinery SO_2 Performance Targets Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year. Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.		X
Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records		X

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pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.		
Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.		X
ADMINISTRATIVE REQUIREMENTS		
Compliance Determination Upon request the operator of flares that are subject to Section 5.6 shall make_available to the APCO the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5). The operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing. The operator shall submit the source test results not later than 45 days after completion of the source testing. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.	X	X
Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section. Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5. Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2. Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10.		X

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Flare Reporting Unplanned Flaring Event Effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. Reportable Flaring Event Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. The report shall include, but is not limited to all of the following: The results of an investigation to determine the primary cause and contributing factors of the flaring event; Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and The date, time, and duration of the flaring event.		X
Annual Monitoring Report Effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: The total volumetric flow of vent gas in standard cubic feet for each day. Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to		X

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Section 6.6. If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month. If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month. For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow. Flare monitoring system downtime periods, including dates and times. For each day and for each month provide calculated sulfur dioxide emissions. A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5.		
<u>Test Methods</u> The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA. VOC, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the following equation: VOC in lb/MMBtu = $\frac{(ppmv\ dry)\ x\ (F, dscf\ /\ MMBtu)}{(1.135\ x10^{6})\ x\ (20.9-\%O_{2})}$ Where: F = As determined by EPA Method 19 NOx emissions in pounds per million BTU shall be determined by using EPA Method 19. NOx and O_2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.	X	X

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Testing and Sampling Methods for Flare Monitoring Effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B, Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.		X
Flow Verification Test Methods For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: EPA Methods 1 and 2; A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10. Tracer gas dilution or velocity. Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.		X
<u>Flare Minimization Plan</u> By July 1, 2010, the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval. The FMP shall include, but not be limited to:		X

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A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems. Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment. A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation. An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown. An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring though the recovery, treatment and use of the gas or other means. An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2. Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan. An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated		

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FMP submittals are only required if: The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and The ATC is deemed complete after June 18, 2009, and The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential, the operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.		
<u>Vent Gas Composition Monitoring</u> Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate. Sampling that meets the following requirements: If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. Samples shall be analyzed pursuant to Section 6.3.4. Integrated sampling that meets the following requirements: If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample		X

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container is full. If sampling is still required pursuant to Section 6.6.2.1, a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. Samples shall be analyzed pursuant to Section 6.3.4. Continuous analyzers that meet the following requirements: The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale. Continuous analyzers employing gas chromatography that meet the following requirements: The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. The gas chromatography system shall be maintained to be accurate within 5% of full scale. Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested pursuant to a method in Section 6.3.4. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis required by Section 5.11. <u>Pilot and Purge Gas Monitoring</u> Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. <u>Water Seal Monitoring</u> Effective on and after July 1, 2011, the operator of a		

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petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour with a water seal shall monitor and record the water level and pressure of the water seal that services each flare daily or as specified on the Permit to Operate. General Monitoring Effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall comply with the following, as applicable: Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. Video Monitoring Effective on and after July 1, 2011, the operator of a petroleum refinery flare shall install and maintain equipment that records a real-time digital image of the flare and flame at a frame rate of no less than one frame per minute. The recorded image of the flare shall be of sufficient size, contrast,		

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and resolution to be readily apparent in the overall image or frame. The image shall include an embedded date and time stamp. The equipment shall archive the images for each 24-hour period. In lieu of video monitoring the operator may use an alternative monitoring method that provides data to verify date, time, vent gas flow, and duration of flaring events.		

Stringency Comparison of District Rule 4401 Non-SIP Version (6/16/2011) to Current SIP Version (12/14/2006)

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
2.0 Applicability	2.0 This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.	2.0 This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.	**No change in applicability, therefore, non-SIP version of rule is as stringent as SIP version.**
4.0 Exemptions	4.1 Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing.	4.1 Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
	4.2 Effective until December 31, 2008, the requirements of this rule for cyclic wells shall not apply to the first 100 cyclic wells of a small producer.		**This exemption is obsolete and removed from the non-SIP version of the rule. Therefore, non-SIP version of rule is as stringent as SIP version**
	4.3 The requirements of this rule for cyclic wells shall not apply to up to 40 wells owned by a company and undergoing pilot testing provided; 4.3.1 the production zone on that property has not been injected with steam during the preceding two (2) years, 4.3.2 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.3.3 the operation is under District permit.	4.2 The requirements of this rule for cyclic wells shall not apply to up to 40 wells owned by a company and undergoing pilot testing provided; 4.2.1 the production zone on that property has not been injected with steam during the preceding two (2) years, 4.2.2 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.2.3 the operation is under District permit.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
	4.4 The requirements of this rule shall not apply to up to 40 cyclic wells owned by a company and undergoing well stimulation, provided; 4.4.1 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the company, and 4.4.2 the operation is under District permit.	4. 3 The requirements of this rule shall not apply to up to 40 cyclic wells owned by a company and undergoing well stimulation, provided; 4.3.1 the well is located more than 1000 feet from an existing well vent vapor collection and control system operated by the compny, and 4.3.2 the operation is under District permit.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
4.0 Exemptions (continued)	4.5 Effective until December 31, 2008, the requirements of this rule shall not apply to up to 20 cyclic wells owned by a company in each stationary source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), provided the requirements of Section 4.5.1 and Section 4.5.2 are met. Effective on and after January 1, 2009, the requirements of this rule shall not apply to up to five (5) cyclic wells owned by a company that is not a small producer, in each stationary source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), and up to 20 cyclic wells owned by a small producer, provided the requirements of Section 4.5.1 and Section 4.5.2 are met. 4.5.1 the well is located more than 1000 feet from an existing well vent vapor control system operated by the company, and 4.5.2 the operation is under District permit.	4.4 The requirements of this rule shall not apply to up to five (5) cyclic wells owned by a company that is not a small producer, in each stationary source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), and up to 20 cyclic wells owned by a small producer, provided the requirements of Section 4.5.1 and Section 4.5.2 are met. 4.4.1 the well is located more than 1000 feet from an existing well vent vapor control system operated by the company, and 4.4.2 the operation is under District permit.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	4.6 Effective until December 31, 2008, the requirements of this rule shall not apply to the first ten (10) wells of a small producer that are responding to steam injected from an operator other than themselves and where no contractual agreement for injected steam exists, and provided the small producer meets the following conditions: 4.6.1 A list of wells that are exempted by Section 4.6 shall be submitted to the APCO by July 15, 1998. 4.6.2 Source testing of the well vent that is nearest to the steam injection well shall be conducted by January 15, 2001 in order to determine its VOC mass emission rate. Source testing shall be conducted in accordance with Section 6.3.4.		**This exemption has been removed in the non-SIP version of the rule since it is obsolete.** **Therefore, non-SIP version of rule is as stringent as SIP version.**
4.0 Exemptions (continued)	4.7 The requirements of this rule shall not apply to components serving the produced fluid line.	4.5 The requirements of this rule shall not apply to components serving the produced fluid line.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
	4.8 Except for complying with the applicable requirements of Section 6.1, Section 6.6.6 and Section 7.2, the requirements of this rule shall not apply to components described in Section 4.8.1 through Section 4.8.4. An operator claiming an exemption pursuant to Section 4.8 shall provide proof of the applicable criteria to the satisfaction of the APCO. 4.8.1 Pressure relief devices, pumps, and compressors that are enclosed and whose emissions are controlled with an operating VOC collection and control system as defined in Section 3.0. 4.8.2 Components buried below ground. 4.8.3 Components used exclusively in vacuum service. 4.8.4 One-half inch nominal or less stainless steel tube fittings which have been demonstrated to the APCO to be leak-free based on initial inspection using the test method specified in Section 6.3.3.	4.6 Except for complying with the applicable requirements of Section 6.1, Section 6.6.6 and Section 7.2, the requirements of this rule shall not apply to components described in Section 4.6.1 through Section 4.6.4. An operator claiming an exemption pursuant to Section 4.6 shall provide proof of the applicable criteria to the satisfaction of the APCO. 4.6.1 Pressure relief devices, pumps, and compressors that are enclosed and whose emissions are controlled with an operating VOC collection and control system as defined in Section 3.0. 4.6.2 Components buried below ground. 4.6.3 Components used exclusively in vacuum service. 4.6.4 One-half inch nominal or less stainless steel tube fittings which have been demonstrated to the APCO to be leak-free based on initial inspection using the test method specified in Section 6.3.3.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
	4.9 Effective on and after January 1, 2009, the requirements of Section 5.8.1 through Section 5.8.5 of this rule shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight or less (≤10 wt.%), as determined by the test methods in Section 6.3.5.	4.7 The requirements of Section 5.4.1 through Section 5.4.7 of this rule shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of ten percent by weight or less (≤10 wt.%), as determined by the test methods in Section 6.3.4.	**No change in exemption, therefore, non-SIP version of rule is as stringent as SIP version.**
5.0 Requirements	Section 5.1 through Section 5.4 shall be effective until December 31, 2008. Section 5.5 through Section 5.9 shall be effective on and after January 1, 2009.		**Sections 5.1 through 5.4 of the SIP Approved version are obsolete. Therefore these requirements were not included in the Non-SIP version .** **Note: Since sections 5.1 through 5.4 of the SIP approved version is obsolete it will not be discussed in this evaluation.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	5.5 An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the requirements of either Section 5.5.1 or Section 5.5.2. 5.5.1 The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. 5.5.2 The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0.	5.1 An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the requirements of either Section 5.5.1 or Section 5.5.2. 5.1.1 The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. 5.1.2 The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**
5.0 Requirements (continued)	5.6 Determination of Compliance with the Leak Standards 5.6.1 An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.8 demonstrates that one or more of the conditions in Section 5.6.2 exist at the facility. 5.6.2 Leak Standards The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.6.1: 5.6.2.1 Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. 5.6.2.2 Existence of a component with a major liquid leak as defined in Section 3.0. 5.6.2.3 Existence of a component with a gas leak greater than 50,000 ppmv. 5.6.2.4 Existence of a component leak described in Section 5.6.2.4.1 through Section 5.6.2.4.3 in excess of the allowable number of leaks specified in Table 3. 5.6.2.4.1 A minor liquid leak, or 5.6.2.4.2 A minor gas leak, or 5.6.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.	5.2 Determination of Compliance with the Leak Standards 5.2.1 An operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.4 demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility. 5.2.2 Leak Standards The following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.6.1: 5.2.2.1 Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. 5.2.2.2 Existence of a component with a major liquid leak as defined in Section 3.0. 5.2.2.3 Existence of a component with a gas leak greater than 50,000 ppmv. 5.2.2.4 Existence of a component leak described in Section 5.6.2.4.1 through Section 5.6.2.4.3 in excess of the allowable number of leaks specified in Table 2. 5.6.2.4.1 A minor liquid leak, or 5.2.2.4.2 A minor gas leak, or 5.2.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

<table>
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<tr><td></td><td>Table 3 Number of Allowable Leaks<table><tr><th>Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System</th><th>Number of Allowable Leaks</th></tr><tr><td>1 to 25</td><td>3</td></tr><tr><td>26 to 50</td><td>6</td></tr><tr><td>51 to 100</td><td>8</td></tr><tr><td>101 to 250</td><td>10</td></tr><tr><td>251 to 500</td><td>15</td></tr><tr><td>More than 500</td><td>One (1) for each 20 wells tested with a minimum of 50 wells tested.</td></tr></table></td><td>Table 2 Number of Allowable Leaks<table><tr><th>Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System</th><th>Number of Allowable Leaks</th></tr><tr><td>1 to 25</td><td>3</td></tr><tr><td>26 to 50</td><td>6</td></tr><tr><td>51 to 100</td><td>8</td></tr><tr><td>101 to 250</td><td>10</td></tr><tr><td>251 to 500</td><td>15</td></tr><tr><td>More than 500</td><td>One (1) for each 20 wells tested with a minimum of 50 wells tested.</td></tr></table></td><td></td></tr>
<tr><td>5.0 Requirements (continued)</td><td>5.7 An operator shall comply with the following operating requirements:

5.7.1 An operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.6.2. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of this rule.

5.7.2 Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.

5.7.3 An operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components.</td><td>5.3 An operator shall comply with the following operating requirements:

5.3.1 An operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.6.2. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of this rule.

5.3.2 Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.

5.3.3 An operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components.</td><td>No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.</td></tr>
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Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
5.0 Requirements (continued)	**5.8 Inspection and Re-inspection Requirements** Unless otherwise specified, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. 5.8.1 Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. 5.8.2 An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this rule. 5.8.3 In addition to the inspections required by Section 5.8.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 5.8.3.1 An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 5.8.3.2 Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this rule. 5.8.4 In addition to the inspections required by Section 5.8.1, Section 5.8.2 and Section 5.8.3, an operator shall perform the following inspections: 5.8.4.1 An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 5.8.4.2 An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. 5.8.4.3 Except for PRDs subject to the requirements of Section 5.8.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. 5.8.5 An operator shall inspect all unsafe-to-monitor components during each turnaround. 5.8.6 A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator.	**5.4 Inspection and Re-inspection Requirements** Unless otherwise specified, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. 5.4.1 Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. 5.4.2 An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this rule. 5.4.3 In addition to the inspections required by Section 5.4.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 5.4.3.1 An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 5.4.3.2 Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this rule. 5.4.4 In addition to the inspections required by Section 5.4.1, Section 5.8.2 and Section 5.8.3, an operator shall perform the following inspections: 5.4.4.1 An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 5.4.4.2 An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. 5.4.4.3 Except for PRDs subject to the requirements of Section 5.4.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. 5.4.5 An operator shall inspect all unsafe-to-monitor components during each turnaround. 5.4.6 A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
5.0 Requirements (continued)	**5.9 Leak Repair Requirements** 5.9.1 An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. An operator shall include the following information on the tag: 5.9.1.1 The date and time of leak detection. 5.9.1.2 The date and time of leak measurement. 5.9.1.3 For a gaseous leak, the leak concentration in ppmv. 5.9.1.4 For a liquid leak, whether it is a major liquid leak or a minor liquid leak. 5.9.1.5 Whether the component is an essential component, an unsafe-to-monitor component, or a critical component. 5.9.2 An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: 5.9.2.1 Repaired or replaced the leaking component, and 5.9.2.2 Re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 The component is found to be in compliance with the requirements of this rule. 5.9.3 An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one hour after detection of the leak. 5.9.4 Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.9.4.1, Section 5.9.4.2, or Section 5.9.4.3 as soon as practicable but not later than time period specified in Table 4. 5.9.4.1 Repair or replace the leaking component; or 5.9.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 5.9.4.3 Remove the leaking component from operation. 5.9.5 The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4. 5.9.6 The time of the initial leak detection shall be the start of the repair period specified in Table 4 5.9.7 If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier.	**5.5 Leak Repair Requirements** 5.5.1 An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. An operator shall include the following information on the tag: 5.5.1.1 The date and time of leak detection. 5.5.1.2 The date and time of leak measurement. 5.5.1.3 For a gaseous leak, the leak concentration in ppmv. 5.5.1.4 For a liquid leak, whether it is a major liquid leak or a minor liquid leak. 5.5.1.5 Whether the component is an essential component, an unsafe-to-monitor component, or a critical component. 5.5.2 An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: 5.5.2.1 Repaired or replaced the leaking component, and 5.5.2.2 Re-inspected the component using the test method in Section 6.3.3, and 5.5.2.3 The component is found to be in compliance with the requirements of this rule. 5.5.3 An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one hour after detection of the leak. 5.5.4 Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.5.4.1, Section 5.5.4.2, or Section 5.5.4.3 as soon as practicable but not later than time period specified in Table 3. 5.5.4.1 Repair or replace the leaking component; or 5.5.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 5.5.4.3 Remove the leaking component from operation. 5.5.5 The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3. 5.5.6 The time of the initial leak detection shall be the start of the repair period specified in Table 3 5.5.7 If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
6.0 Administrative Requirements	**6.1 Recordkeeping and Submissions** An operator shall maintain the records required by Sections 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request. 6.1.1 The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. 6.1.2 Effective January 15, 1998, a small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2. 6.1.3 An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0. 6.1.4 Effective until December 31, 2008, the results of source tests conducted pursuant to Section 4.6.2 shall be submitted to the APCO within 60 days after the completion of the source test. 6.1.5 Effective on and after January 1, 2009, the inspection log maintained pursuant to Section 6.4. 6.1.6 Effective on and after January 1, 2009, records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. 6.1.7 Effective on and after January 1, 2009, an operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5. 6.1.8 Effective on and after January 1, 2009, an operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. 6.1.9 An operator shall submit to the APCO not later than June 14, 2007 a list of all gauge tanks, as defined in Section 3.17. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. 6.1.10 The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. 6.1.11 Effective on and after January 1, 2007, an operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year.	**6.1 Recordkeeping and Submissions** An operator shall maintain the records required by Section 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request. 6.1.1 The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. 6.1.2 A small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2. 6.1.3 An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0. 6.1.4 The inspection log maintained pursuant to Section 6.4. 6.1.5 Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration. 6.1.6 An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5. 6.1.7 An operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. 6.1.8 An operator shall keep a list of all gauge tanks, as defined in Section 3.0. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. 6.1.9 The results of gauge tank TVP testing conducted pursuant to Section 6.2.3 shall be submitted to the APCO within 60 days after the completion of the testing. 6.1.10 An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year of the release to the APCO no later than 60 days after the end of the calendar year.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
6.0 Administrative Requirements (continued)	**6.2 Compliance Source Testing** 6.2.1 An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. 6.2.2 If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. 6.2.3 If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. 6.2.4 An operator seeking approval pursuant to Section 6.2.2 or Section 6.2.3 shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. 6.2.5 An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17: 6.2.5.1 Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July – September), and whenever there is a change in the source or type of produced fluid in the gauge tank. 6.2.5.2 The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10.	6.2 Compliance Source Testing 6.2.1 An operator shall source test annually all VOC collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. A process system is not subject to compliance source testing requirements. 6.2.2 If approved by the APCO, a VOC collection and control system is not subject to Section 6.2.1 if all uncondensed VOC emissions collected by the system are controlled by a device meeting one of the requirements in Sections 6.2.2.1 through 6.2.2.3. 6.2.2.1 An internal combustion engine subject to District Rule 4702 (Internal Combustion Engines – Phase 2); or 6.2.2.2 A combustion device subject to District Rule 4320 (Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr); District Rule 4307 (Boilers, Steam Generators, and Process Heaters – 2.0 MMBtu/hr to 5.0 MMBtu/hr); or District Rule 4308 (Boilers, Steam Generators, and Process Heaters – 0.075 MMBtu/hr to 2.0 MMBtu/hr); or 6.2.2.3 A unit subject to District Rule 4311 (Flares). 6.2.3 An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0: 6.2.3.1 An operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July – September), and whenever there is a change in the source or type of produced fluid in the gauge tank. 6.2.3.2 The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version..**
6.0 Administrative Requirements (continued)	**6.3 Test Methods** Test methods that are equivalent to those test methods specified in Section 6.3.1 through Section 6.3.5 may be used provided that such equivalent test methods have been previously approved, in writing, by the EPA, ARB, and the APCO. 6.3.1 The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case	**6.3 Test Methods** Test methods that are equivalent to those test methods specified in Section 6.3.1 through Section 6.3.4 may be used provided that such equivalent test methods have been previously approved, in writing, by the EPA, ARB, and the APCO. 6.3.1 The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. 6.3.2 VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. 6.3.3 Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. 6.3.4 Effective until December 31, 2008, for the purpose of Section 4.6.2, the VOC mass emission rate shall be determined according to the procedures described in the document USEPA-909/9-81-003, September 1981, entitled "Assessment of VOC Emissions from Well Vents Associated with Thermally Enhanced Oil Recovery". 6.3.5 The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids.	25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. 6.3.2 VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. 6.3.3 Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. 6.3.4 The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids.	
6.0 Administrative Requirements (continued)	**6.4 Inspection Log** Effective on and after January 1, 2009, an operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: 6.4.1 The total number of components inspected, and the total number and percentage of leaking components found by component type. 6.4.2 The location, type, and name or description of each leaking component and description of any unit where the leaking component is found. 6.4.3 The date of leak detection and the method of leak detection. 6.4.4 For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. 6.4.5 The date of repair, replacement, or removal from operation of	**6.4 Inspection Log** An operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: 6.4.1 The total number of components inspected, and the total number and percentage of leaking components found by component type. 6.4.2 The location, type, and name or description of each leaking component and description of any unit where the leaking component is found. 6.4.3 The date of leak detection and the method of leak detection. 6.4.4 For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. 6.4.5 The date of repair, replacement, or removal from operation	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	leaking components. 6.4.6 The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier. 6.4.7 The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier. 6.4.8 The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced. 6.4.9 The inspector's name, business mailing address, and business telephone number. 6.4.10 The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.	of leaking components. 6.4.6 The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier. 6.4.7 The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier. 6.4.8 The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced. 6.4.9 The inspector's name, business mailing address, and business telephone number. 6.4.10 The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.	
	6.5 Employee Training Program Effective on and after January 1, 2009, an operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.	**6.5 Employee Training Program** An operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**
6.0 Administrative Requirements (continued)	**6.6 Operator Management Plan** By June 30, 2008, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0 of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan for approval by the APCO. An operator may use diagrams, charts, spreadsheets, or other methods approved by the APCO to describe the information required by Section 6.6.4 through Section 6.6.7 below. The Operator Management Plan shall include, at a minimum, all of the following information: 6.6.1 A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule. 6.6.2 Identification and description of any known hazard that might affect the safety of an inspector. 6.6.3 Except for pipes, the number of components that are subject to this rule by component type. 6.6.4 Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation. 6.6.5 Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description). 6.6.6 Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be	**6.6 Operator Management Plan** By June 30, 2008, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0 of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan for approval by the APCO. An operator may use diagrams, charts, spreadsheets, or other methods approved by the APCO to describe the information required by Section 6.6.4 through Section 6.6.7 below. The Operator Management Plan shall include, at a minimum, all of the following information: 6.6.1 A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule. 6.6.2 Identification and description of any known hazard that might affect the safety of an inspector. 6.6.3 Except for pipes, the number of components that are subject to this rule by component type. 6.6.4 Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation. 6.6.5 Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description). 6.6.6 Except for pipes, components exempt pursuant to Section 4.6 (except for components buried below ground) may be	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Requirement Category	SIP Version of Rule 4401 (12/14/2006)	Non-SIP Version of Rule 4401 (6/16/2011)	Conclusion
	described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan. 6.6.7 A detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team. 6.6.8 A description of the training standards for personnel that inspect and repair components. 6.6.9 A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. 6.7 By January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. 6.8 The APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule.	described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Section 4.6 shall be submitted with the Operator Management Plan. 6.6.7 A detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team. 6.6.8 A description of the training standards for personnel that inspect and repair components. 6.6.9 A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. 6.7 By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. 6.8 The APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule.	
7.0 Compliance Schedule	**7.0 Compliance Schedule** 7.1 The operator of any new steam-enhanced crude oil production well, or any non-steam-enhanced crude oil production well converted to a steam-enhanced crude oil production well, which commences steam-enhancement operations on or after April 11, 1991, shall comply with the requirements of this rule and the applicable permit requirements of Rule 2201 (New and Modified Stationary Source Review Rule) before steam injection and no later than the first detectable flow at the casing vent. 7.2 Steam-enhanced crude oil production wells and components that are exempt pursuant to Section 4.3, 4.4, 4.5, 4.8 or 4.9 that become subject to this rule through loss of exemption status shall not be operated until such time that they are in full compliance with the requirements of this rule. 7.3 Effective on and after January 1, 2009, an operator shall be in full compliance with the requirements of this rule, unless otherwise specified in the provisions of this rule	**7.0 Compliance Schedule** 7.1 The operator of any new steam-enhanced crude oil production well, or any nonsteam- enhanced crude oil production well converted to a steam-enhanced crude oil production well shall comply with the requirements of this rule and the applicable permit requirements of Rule 2201 (New and Modified Stationary Source Review Rule) before steam injection and no later than the first detectable flow at the casing vent. 7.2 Steam-enhanced crude oil production wells and components that are exempt pursuant to Section 4.2, 4.3, 4.4, 4.6, or 4.7 that become subject to this rule through loss of exemption status shall not be operated until such time that they are in full compliance with the requirements of this rule.	**No change in requirement, therefore, non-SIP version of rule is as stringent as SIP version.**

Overall Conclusion:

As analyzed above, each amended section of the non-SIP version of the rule is at least as stringent as, or more stringent than the corresponding section of the SIP version of the rule. Therefore, it is concluded that overall the non-SIP version of the rule is more stringent than the SIP version of the rule.

Stringency Comparison of District Rule 4601 Non-SIP Version (12/17/09) to Current SIP Version (10/31/01)

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
2.0 Applicability	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the District.	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating for use within the District.	**No change in the applicability, therefore, non-SIP version of rule is as stringent as SIP version.**
4.0 Exemptions	The provisions of this rule shall not apply to: 4.1 Any architectural coating that is sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging. 4.2 Any architectural coating that is sold in a containers with a volume of one liter (1.057 quarts) or less. 4.3 Any aerosol coating product.	4.1 The provisions of this rule shall not apply to: 4.1.1 Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging. 4.1.2 Any aerosol coating product. 4.2 With the exception of Section 6.2, the provisions of this rule shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quarts) or less.	**The only change is to require reporting requirements as discussed in Section 6.2 of the non-SIP approved version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**
5.0 Requirements	**Note: Section 5.0 requirements refer to Table of Standards, Table of Standards 1, and Table of Standards 2. These tables are included as Attachment X.**		
	5.1 VOC Content Limits: Except as provided in Sections 5.2, 5.3, 5.8 and 8.0, no person shall; 5.1.1 manufacture, blend, or repackage for sale within the District; 5.1.2 supply, sell, or offer for sale within the district; 5.1.3 solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards, after the specified effective date in the Table of Standards.	5.1 VOC Content Limits: Except as provided in Sections 5.2 and 5.3, no person shall: manufacture, blend, or repackage for use within the District; or supply, sell, or offer for sale within the District; or solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards 1 or the Table of Standards 2, after the specified effective date in the Table of Standards 1 or the Table of Standards 2. Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.	**Sections 5.8 and 8.0 of the SIP version are not included in the non-SIP version. As discussed in corresponding sections the non-SIP version is more stringent. The Table of Standards and Table of Standards 1 have the same VOC limits. Table of Standard 2 is more stringent as discussed below. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**
	5.2 Most Restrictive VOC Limit: If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in the Table of Standards, then the most restrictive VOC content limit shall apply. This provision does not apply to the following coating categories: 5.2.1 Lacquer coatings (including lacquer sanding sealers) 5.2.2 Metallic pigmented coatings 5.2.3 Shellacs 5.2.4 Fire-retardant coatings 5.2.5 Pretreatment wash primers 5.2.6 Industrial maintenance coatings 5.2.7 Low-solids coatings	5.2 Most Restrictive VOC Limit: If a coating meets the definition in Section 3.0 for one or more specialty coating categories listed in the Table of Standards 1 or the Table of Standards 2, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat – High Gloss coatings, but is required to meet the VOC limit for the applicable specialty coating listed in the Table of Standards 1 or the Table of Standards 2. 5.2.1 Effective until December 31, 2010, with the exception of the specialty coating categories specified in Section 5.2.3.1 through 5.2.3.15, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 1, the most restrictive (or lowest) VOC content limit shall apply. 5.2.2 Effective on and after January 1, 2011, with the exception of the	**The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	5.2.8 Wood preservatives 5.2.9 High temperature coatings 5.2.10 Temperature-indicator safety coatings 5.2.11 Antenna coatings 5.2.12 Antifouling coatings 5.2.13 Flow coatings 5.2.14 Bituminous roof primers 5.2.15 Specialty primers, sealers and undercoaters	specialty coating categories specified in Sections 5.2.3.2, 5.2.3.3, 5.2.3.5 through 5.2.3.9, and 5.2.3.14 through 5.2.3.18, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 2, the most restrictive (or lowest) VOC content limit shall apply. 5.2.3 This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf. 5.2.3.1 Lacquer coatings (including lacquer sanding sealers) 5.2.3.2 Metallic pigmented coatings 5.2.3.3 Shellacs 5.2.3.4 Fire-retardant coatings 5.2.3.5 Pretreatment wash primers 5.2.3.6 Industrial maintenance coatings 5.2.3.7 Low-solids coatings 5.2.3.8 Wood preservatives 5.2.3.9 High temperature coatings 5.2.3.10 Temperature-indicator safety coatings 5.2.3.11 Antenna coatings 5.2.3.12 Antifouling coatings 5.2.3.13 Flow coatings 5.2.3.14 Bituminous roof primers 5.2.3.15 Specialty primers, sealers and undercoaters 5.2.3.16 Aluminum roof coatings 5.2.3.17 Zinc-rich primers 5.2.3.18 Wood Coatings	
	5.3 Sell-Through of Coatings: 5.3.1 A coating manufactured prior to the January 1, 2003 or January 1, 2004 effective date specified for that coating in the Table of Standards may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in the Table of Standards may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1. 5.3.2 A coating included in an approved Averaging Program that does not comply with the specified limit in the	5.3 Sell-Through of Coatings: A coating manufactured prior to the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2, and that complied with the standards in effect at the time the coating was manufactured, may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2 may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1.	**The VOC limit of the non-SIP version is at least as stringent as the SIP version. Section 5.3.2 was removed it is no longer applicable in the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	Table of Standards may be sold, supplied, or offered for sale for up to three years after the end of the compliance period specified in the approved Averaging Program. In addition, such a coating may be applied at any time, both during and after the compliance period. This Section 5.3.2 does not apply to any coating that does not display on the container either the statement: "This product is subject to architectural coatings averaging provisions in California" or a substitute symbol specified by the Executive Officer of the California Air Resources Board (ARB). This Section 5.3.2 shall remain in effect until January 1, 2008.		
	5.4 Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC containing materials used for thinning and cleanup shall also be closed when not in use.	5.4 Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.	**No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.**
	5.5 Thinning: No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards.	5.5 Thinning: No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards 1 or the Table of Standards 2.	**The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**
	5.6 Rust Preventative Coatings: Effective January 1, 2004, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards.	5.6 Rust Preventative Coatings: Effective through December 31, 2010, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards 1.	**The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**
	5.7 Coatings Not Listed in the Table of Standards: For any coating that does not meet any of the definitions for the specialty coatings categories listed in the Table of Standards, the VOC content limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in Sections 3.21, 3.36 and 3.37 and the corresponding flat or nonflat VOC limit shall apply.	5.7 Coatings Not Listed in the Table of Standards 1 or the Table of Standards 2: For any coating that does not meet any of the definitions for the specialty coatings categories listed in the Table of Standards 1 or the Table of Standards 2, the VOC content limit shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat – High Gloss coating, based on its gloss, and the corresponding Flat, Nonflat, or Nonflat – High Gloss VOC limit in the Table of Standards 1 or the Table of Standards 2 shall apply.	**The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**
	5.8 Lacquers: Notwithstanding the provisions of Section 3.1, a person or facility may add up to 10 percent by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater	---	**This section has been removed. The operation is required to meet the lacquer VOC limit regardless of**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	than 70 percent and temperature below 65°F, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.		**temperature and humidity. Therefore, non-SIP version of rule is as stringent as SIP version**
	5.9 Averaging Compliance Option: On or after January 1, 2003, in lieu of compliance with the specified limits in The Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; bituminous roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in Section 8.0, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section 5.9 and Section 8.0 shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.	---	**This section is removed from the non-SIP version, it is no longer applicable. Therefore, non-SIP version of rule is as stringent as SIP version.**
	---	5.8 Prior to January 1, 2011, any coating that meets a definition in Section 3.0 for a coating category listed in the Table of Standards 2 and complies with the applicable VOC limit in the Table of Standards 2 and with Sections 5.2 and 6.1 (including those provision of Section 6.1 otherwise effective on January 1, 2011) shall be considered in compliance with this rule.	**Table of Standards 2 is more stringent than the VOC limits of Table of Standards in the SIP-Approved version. Therefore, non-SIP version of rule is as stringent as SIP version.**
	Table of Standards (See Attachment X for Table)	Table of Standards 1 (Effective through 12/31/10) (See Attachment X for Table)	**The non-SIP rule requirements are the same as the Table of Standards in the SIP approved rule, except Table of Standards 1 expires at which time Table of Standards 2 is in effect. As discussed below these standards are more stringent. Therefore, non-SIP version of rule is as stringent as SIP version.**
		Table of Standards 2 (Effective on and after 1/1/11) (See Attachment X for Table)	**The requirements of Table of Standards 2 are more stringent than the Table of Standards in the SIP rule. Therefore, non-SIP version of rule is as stringent as SIP version.**
6.0 Administrative Requirements	6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections	6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the	**The non-SIP approved rule contain sections listed in the SIP rule plus**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	6.1.1 through 6.1.9 on the coating container (or label) in which the coating is sold or distributed. 6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB. 6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning. 6.1.3 VOC Content: Each container of any coating subject to this rule shall display either the maximum or actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in Section 6.3.1. The equations in Sections 3.25 or 3.26, as appropriate, shall be used to calculate VOC content. 6.1.4 Industrial Maintenance Coatings: In addition to the information specified in Sections 6.1.1, 6.1.2 and 6.1.3, each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.4.1 through 6.1.4.3. 6.1.4.1 "For industrial use only" 6.1.4.2 "For professional use only" 6.1.4.3 "Not for residential use" or "Not intended for residential use" 6.1.5 Clear Brushing Lacquers: Effective January 1, 2003, the labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed." 6.1.6 Rust Preventative Coatings: Effective January 1, 2003, the labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only" 6.1.7 Specialty Primers, Sealers and Undercoaters: Effective January 1, 2003, the labels of all specialty primers, sealers and undercoaters shall prominently	information listed in Sections 6.1.1 through 6.1.14 on the coating container (or label) in which the coating is sold or distributed. 6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB. 6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning. 6.1.3 VOC Content: Each container of any coating subject to this rule shall display one of the following values, in grams of VOC per liter of coating: 6.1.3.1 Maximum VOC Content, as determined from all potential product formulations; or 6.1.3.2 VOC Content, as determined from actual formulation data; or 6.1.3.3 VOC Content, as determined using the test methods in Section 6.3.2. If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multicomponent product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing. 6.1.4 Faux Finishing Coatings: Effective January 1, 2011, the labels of all clear topcoat Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system". 6.1.5 Industrial Maintenance Coatings: Each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of	**additional requirements not found in the SIP version. Therefore, non-SIP version of rule is as stringent as SIP version.**

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	display one or more of the descriptions listed in Section 6.1.7.1 through 6.1.7.5. 6.1.7.1 For blocking stains. 6.1.7.2 For fire-damaged substrates. 6.1.7.3 For smoke-damaged substrates. 6.1.7.4 For water-damaged substrates. 6.1.7.5 For excessively chalky substrates. 6.1.8 Quick Dry Enamels: Effective January 1, 2003, the labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time. 6.1.9 Non-flat – High Gloss Coatings: Effective January 1, 2003, the labels of all non-flat – high gloss coatings shall prominently display the words "High Gloss".	the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.5.1 through 6.1.5.3. 6.1.5.1 "For industrial use only" 6.1.5.2 "For professional use only" 6.1.5.3 "Not for residential use" or "Not intended for residential use" 6.1.6 Clear Brushing Lacquers: The labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed." (Category deleted effective January 1, 2011.) 6.1.7 Rust Preventative Coatings: The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only". 6.1.8 Specialty Primers, Sealers and Undercoaters: Effective until December 31, 2010, the labels of all specialty primers, sealers and undercoaters shall prominently display one or more of the descriptions listed in Section 6.1.8.1 through 6.1.8.5. Effective on and after January 1, 2011, the labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in Sections 6.1.8.1 through 6.1.8.3. On and after January 1, 2011, Sections 6.1.8.4 and 6.1.8.5 will be no longer effective. 6.1.8.1 For fire-damaged substrates. 6.1.8.2 For smoke-damaged substrates. 6.1.8.3 For water-damaged substrates. 6.1.8.4 For excessively chalky substrates. 6.1.8.5 For blocking stains. 6.1.9 Quick Dry Enamels: The labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time. (Category deleted effective January 1, 2011.) 6.1.10 Reactive Penetrating Sealers: Effective January 1, 2011, the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer." 6.1.11 Stone Consolidants: Effective January 1, 2011, the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant - For Professional Use Only." 6.1.12 Nonflat– High Gloss Coatings: The labels of all Nonflat – high gloss coatings shall prominently display the words "High Gloss."	

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		6.1.13 Wood Coatings: Effective January 1, 2011, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only." 6.1.14 Zinc Rich Primers: Effective January 1, 2011, the labels of all Zinc Rich Primers shall prominently display one or more of the following descriptions listed in Section 6.1.14.1 through 6.1.14.3. 6.1.14.1 "For industrial use only" 6.1.14.2 "For professional use only" 6.1.14.3 "Not for residential use" or "Not intended for residential use"	
	6.2 Reporting Requirements 6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales. 6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales. 6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales. 6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year: 6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;	6.2 Reporting Requirements The reporting requirements specified in Sections 6.2.1 through 6.2.6 shall apply until December 31, 2010. 6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales. 6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales. 6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales. 6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an	**Until December 31, 2010 both versions of the rule have the same reporting requirements. After that date the non-SIP approved rule includes very specific information to be kept and is required for all architectural coatings. Therefore, non-SIP version of rule is as stringent as SIP version.**

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	6.2.4.2 the product category listed in the Table of Standards to which the coating belongs; 6.2.4.3 the total sales in California during the calendar year to the nearest gallon; 6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating. 6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution. 6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.	annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year: 6.2.4.1 the product brand name and a copy of the product label with legible usage instructions; 6.2.4.2 the product category listed in the Table of Standards 1 or the Table of Standards 2 to which the coating belongs; 6.2.4.3 the total sales in California during the calendar year to the nearest gallon; 6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating. 6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution. 6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales. 6.2.7 Effective on and after January 1, 2011, Sales Data: All sales data listed in Sections 6.2.7.1 to 6.2.7.14 shall be maintained on-site by the responsible official for a minimum of three years. A responsible official from each manufacturer shall upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17,	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		California Code of Regulations Sections 91000-91022. The responsible official shall within 180 days provide information, including, but not limited to the data listed in Sections 6.2.7.1 through 6.2.7.14: 6.2.7.1 the name and mailing address of the manufacturer; 6.2.7.2 the name, address and telephone number of a contact person; 6.2.7.3 the name of the coating product as it appears on the label and the applicable coating category; 6.2.7.4 whether the product is marketed for interior or exterior use or both; 6.2.7.5 the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart); 6.2.7.6 the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed; 6.2.7.7 the names and CAS numbers of the VOC constituents in the product; 6.2.7.8 the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition; 6.2.7.9 whether the product is marketed as solvent-borne, waterborne, or 100% solids; 6.2.7.10 description of resin or binder in the product; 6.2.7.11 whether the coating is a single-component or multi-component product; 6.2.7.12 the density of the product in pounds per gallon; 6.2.7.13 the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition; and 6.2.7.14 the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition.	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	6.3 Test Methods 6.3.1 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.26 and 3.27, the reference method for VOC content is U.S. EPA Method 24, except as provided in Sections 6.3.2 and 6.3.15. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in Section 6.3.14. The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised August 1996), incorporated by reference in Section 6.3.12. To determine the VOC content of a coating, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Section 6.3.2, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 6.3.2. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct a Method 24 analysis. 6.3.2 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.1, after review and approved in writing by the staffs of the District, the ARB and the U.S. EPA, may also be used. 6.3.3 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section 6.3.15. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings. 6.3.4 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials"(see Section 3, Fire-Retardant Coating). 6.3.5 Fire Resistance Rating: The fire	6.3 Test Methods The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA. 6.3.1 Calculation of VOC Content: For the purpose of determining compliance with the VOC content limits in the Table of Standards 1 or the Table of Standards 2, the VOC content of a coating shall be determined as defined in Section 3.77, 3.78, or 3.79 as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOC during the curing process, the VOC content must include the VOCs emitted during curing. 6.3.2 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.77 and 3.79, the reference method for VOC content is EPA Method 24, except as provided in Sections 6.3.3 and 6.3.16. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996). The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised 1993), BAAQMD Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable. To determine the VOC content of a coating, the manufacturer may use EPA Method 24, or an alternative method as provided in Section 6.3.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of EPA Method 24 test and any other means for determining VOC content, the EPA Method 24	**The non-SIP version includes all the requirements of the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.**

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	resistance rating of a fire-resistive coating shall be determined by ASTM Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials"(see Section 3, Fire-Resistive Coating). 6.3.6 Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss"(see Section 3, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel). 6.3.7 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 3, Metallic Pigmented Coating). 6.3.8 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products"(see Section 3, Pre-Treatment Wash Primer). 6.3.9 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quickdry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95. 6.3.10 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater). 6.3.11 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," *BAAQMD Manual of Procedures*, Volume III, adopted 11/6/96 (see Section 3, Volatile Organic Compound, and Section 6.3.1). 6.3.12 Exempt Compounds—	test results will govern, except when an alternative method is approved as specified in Section 6.3.3. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct an EPA Method 24 analysis. 6.3.3 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.2 4, after review and approved in writing by the staffs of the District, ARB and EPA, may also be used. 6.3.4 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of EPA Method 24 (40 CFR 59, subpart D, Appendix A). This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings. 6.3.5 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM E84-07, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see Section 3.0, Fire-Retardant Coating). 6.3.6 Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM E119-07, "Standard Test Methods for Fire Tests of Building Construction Materials" (see Section 3.0, Fire-Resistive Coating). 6.3.7 Gloss Determination: The gloss of a coating shall be determined by ASTM D523-89 (1999), "Standard Test Method for Specular Gloss" (see Section 3.0, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel). 6.3.8 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 3.0, Metallic Pigmented Coating, Aluminum Roof Coating and Faux Finish. 6.3.9 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products" (see Section 3.0, Pre-Treatment Wash Primer).	

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	Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotriflouride," *BAAQMD Manual of Procedures*, Volume III, adopted 12/20/95 (see Section 3, Volatile Organic Compound, and Section 6.3.1). 6.3.13 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1996), "Determination of Exempt Compounds," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 3, Volatile Organic Compound, and Section 6.3.1). 6.3.14 VOC Content of Coatings: The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 *Code of Federal Regulations* (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings"(see Section 6.3.1). 6.3.15 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 6.3.1). 6.3.16 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998) (see Section 6.3.3).	6.3.10 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3.0, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM D1640-95. (Category deleted effective January 1, 2011.) 6.3.11 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater). (Category deleted effective January 1, 2011.) 6.3.12 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," *BAAQMD Manual of Procedures*, Volume III, adopted 11/6/96 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2). 6.3.13 Exempt Compounds—Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotriflouride," *BAAQMD Manual of Procedures*, Volume III, adopted 12/20/95 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2). 6.3.14 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1993), "Determination of Exempt Compounds," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 3.0, Volatile Organic Compound, and Section 6.3.2). 6.3.15 VOC Content of Coatings: The VOC content of a coating shall be determined by EPA Method 24 as it exists in appendix A of 40 *Code of*	

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		Federal Regulations (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings" (see Section 6.3.2). 6.3.16 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," *SCAQMD Laboratory Methods of Analysis for Enforcement Samples.* 6.3.17 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998). 6.3.18 Hydrostatic Pressure for Basement Specialty Coatings: The hydrostatic pressure resistance for basement specialty coatings shall be analyzed using ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry". 6.3.19 Tub and Tile Refinish Coating Adhesion: The adhesion of tub and tile coating shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test". 6.3.20 Tub and Tile Refinish Coating Hardness: The hardness of tub and tile refinish coating shall be determined by ASTM D3363-05, "Standard Test Method for Film Hardness by Pencil Test". 6.3.21 Tub and Tile Refinish Coating Abrasion Resistance: Abrasion resistance of tub and tile refinish coating shall be analyzed by ASTM D4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser". 6.3.22 Tub and Tile Refinish Coating Water Resistance: Water resistance of tub and tile refinish coatings shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02e1, "Standard Test Method	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		for Evaluating Degree of Blistering of Paints". 6.3.23 Waterproofing Membrane: Waterproofing membrane shall be tested by ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course". 6.3.24 Mold and Mildew Growth for Basement Specialty Coatings: Mold and mildew growth resistance for basement specialty coatings shall be determined by ASTM D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation". 6.3.25 Reactive Penetrating Sealer Water Repellency: Reactive penetrating sealer water repellency shall be analyzed by ASTM C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units". 6.3.26 Reactive Penetrating Sealer Water Vapor Transmission: Reactive penetrating sealer water vapor transmission shall be analyzed ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials". 6.3.27 Reactive Penetrating Sealer - Chloride Screening Applications: Reactive penetrating sealers shall be analyzed by National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures". 6.3.28 Stone Consolidants: Stone consolidants shall be tested using ASTM E2167-01, "Standard Guide for Selection and Use of Stone Consolidants".	
7.0 Compliance Schedule	Persons subject to this rule shall be in compliance with this rule by October 31, 2001.	Persons subject to this rule shall be in compliance with this rule by the dates specified within the rule.	**No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.**
8.0 Averaging Compliance Option	8.1 On or after January 1, 2003, in lieu of compliance with the specified limits in the Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; rust		**No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.**