



JUN 03 2016

Ms. Adean Valenzuela
AERA Energy, LLC
PO Box 11164
Bakersfield, CA 93389

**Re: Notice of Minor Title V Permit Modification
District Facility # C-1121
Project # C-1161368**

Dear Ms. Valenzuela:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to remove a non-applicable condition from six tank permits.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V permit, recently issued draft permits C-1121-22-14, 24-9, 25-9, 26-9, 72-9 and 73-9, emission increases, application, and previous Title V permit. This project will be subject to a 45-day EPA commenting period prior to the District taking final action.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,


Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

TITLE V APPLICATION REVIEW

Minor Modification
Project #: C-1161368

Engineer: Steve Roeder
Date: 5/20/16

OK 5-26-16

Facility Number: C-1121
Facility Name: AERA Energy, LLC.
Mailing Address: PO Box 11164
Bakersfield, CA 93389

Contact Name: Adean Valenzuela
Phone: (661) 665-5335

Responsible Official: David Culbertron
Title: Process Supervisor

I. PROPOSAL

AERA Energy is proposing a Title V minor permit modification to remove the following permit condition from six tank permits:

- 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] Y

See the current permits in Appendix A.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

II. FACILITY LOCATION

The facility is located in the Coalinga Heavy Oilfields in Fresno County.

III. EQUIPMENT DESCRIPTIONS

- C-1121-22-14: 4.0 MMBTU/HR ENGELMAN GENERAL HEATER WITH NORTH AMERICAN MODEL 5131 GAS BURNER (PEER-1-0) AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-303)
- C-1121-24-9: 6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-307)
- C-1121-25-9: 6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-308)
- C-1121-26-9: 6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #6121-25H GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-309)
- C-1121-72-9: 33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-301)
- C-1121-73-9: 33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-302)

IV. SCOPE OF EPA AND PUBLIC REVIEW

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

V. APPLICABLE REQUIREMENTS

District Rule 2520, Federally Mandated Operating Permits (Adopted June 21, 2001)

VI. DESCRIPTION OF PROPOSED MODIFICATIONS

The pressure relief valves on these tanks are enclosed and vented to a vapor recovery system.

According to District Rules 4401 (Steam Enhanced Crude Oil Production Wells) and 4409 (Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities), a pressure relief valve is defined as “an automatic pressure-relieving device associated with a process vessel or piping system that is activated by pressure upstream of the device and relieves to the atmosphere (atmospheric PRV).

As such, the condition is not applicable to the tank permits and may be removed.

Since the condition is not applicable to the tanks, the removal of the condition is not considered to be “relaxation” of any applicable monitoring conditions.

No changes in operation or emissions are expected as the result of removing this condition.

VII. COMPLIANCE

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include;
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and

5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and
3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

VIII. ATTACHMENTS

- A. Current Permits
- B. Proposed Title V Permits
- C. Emissions Increases
- D. Application

ATTACHMENT A

Current Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-22-10

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

4.0 MMBTU/HR ENGELMAN GENERAL HEATER WITH NORTH AMERICAN MODEL 5131 GAS BURNER (PEER-1-0) AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-303)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
6. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. 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
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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

11. 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, 9.3.2] Federally Enforceable Through Title V Permit
12. 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
13. 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, 9.3.2] Federally Enforceable Through Title V Permit
14. 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
15. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Vessel 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
17. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
19. 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 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
20. 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
21. Prior to reintroducing crude oil/water to the vessel, 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

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

22. 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
23. 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
24. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line vessel or at any secondary vessel which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
25. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
26. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-24-6

EXPIRATION DATE: 12/31/2016

SECTION: 32 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-307)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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15. 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
16. 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
17. 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
18. 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
19. 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
20. 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
21. 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
22. 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
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel 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
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
27. 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 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
28. 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
29. 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
30. 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
31. 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
32. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
33. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
34. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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
35. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
36. 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, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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37. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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
38. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
39. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
40. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
41. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-25-6

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-308)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. 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
16. 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
17. 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
18. 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
19. 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
20. 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
21. 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
22. 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
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel 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
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

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

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
27. 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 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
28. 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
29. 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
30. 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
31. 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
32. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
33. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
34. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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
35. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
36. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

37. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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
38. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
39. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
40. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
41. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-26-6

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #6121-25H GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-309)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. 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
16. 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
17. 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
18. 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
19. 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
20. 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
21. 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
22. 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
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel 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
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

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

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
27. 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 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
28. 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
29. 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
30. 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
31. 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
32. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
33. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
34. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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
35. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
36. 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, 9.4.2] Federally Enforceable Through Title V Permit

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

37. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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
38. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
39. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
40. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
41. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-72-6

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-301)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. 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
11. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. 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
13. 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
14. 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
15. 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
16. 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
17. FWKO unit pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the PRV can be removed from the FWKO unit and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the varec. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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
19. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
20. Vessel 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 vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
These terms and conditions are part of the Facility-wide Permit to Operate.

23. 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 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 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
26. 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
27. 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
28. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
29. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-73-6

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-302)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. 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
11. 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

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

12. 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
13. 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
14. 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
15. 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
16. 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
17. FWKO unit pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the PRV can be removed from the FWKO unit and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the varel. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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
19. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
20. Vessel 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 vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
These terms and conditions are part of the Facility-wide Permit to Operate.

23. 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 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 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
26. 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
27. 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
28. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
29. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
30. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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

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

ATTACHMENT B

Proposed Title V Permits

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-22-14

EXPIRATION DATE: 12/31/2016

SECTION: 32 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

4.0 MMBTU/HR ENGELMAN GENERAL HEATER WITH NORTH AMERICAN MODEL 5131 GAS BURNER (PEER-1-0) AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-303)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
3. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
6. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule and Rule 4623] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. 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
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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

11. 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, 9.3.2] Federally Enforceable Through Title V Permit
12. 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
13. 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, 9.3.2] Federally Enforceable Through Title V Permit
14. 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
15. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
16. Vessel 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
17. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit
18. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
19. 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 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
20. 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
21. Prior to reintroducing crude oil/water to the vessel, 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

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

22. 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
23. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line vessel or at any secondary vessel which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
24. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-24-9

EXPIRATION DATE: 12/31/2016

SECTION: 32 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-307)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. 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
16. {970} 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
17. {971} 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
18. {972} 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
19. {973} 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
20. {974} 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
21. {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
22. 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
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel 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
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

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

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
27. 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 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
28. 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
29. 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
30. 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
31. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
32. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
35. 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, 9.4.2] Federally Enforceable Through Title V Permit
36. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

37. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
38. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
39. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
40. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-25-9

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #5131 GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-308)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0044 lb-PM10/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. 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
16. {970} 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
17. {971} 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
18. {972} 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
19. {973} 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
20. {974} 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
21. {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
22. 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
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel 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
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

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

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
27. 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 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
28. 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
29. 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
30. 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
31. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
32. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
35. 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, 9.4.2] Federally Enforceable Through Title V Permit
36. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

37. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
38. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
39. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
40. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-26-9

EXPIRATION DATE: 12/31/2016

SECTION: 32 **TOWNSHIP:** 19S **RANGE:** 15E

EQUIPMENT DESCRIPTION:

6.0 MMBTU/HR ENGLEMAN GENERAL HEATER WITH TWO 3.0 MMBTU/HR NORTH AMERICAN MODEL #6121-25H GAS BURNERS AND PRESSURE RELIEF VENT TO VAPOR RECOVERY SYSTEM LISTED ON C-1121-45 (V-309)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on natural gas, containing no more than 1 grain of sulfur per 100 standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
7. Maximum annual heat input of the unit shall not exceed 9 billion Btu per calendar year. [District Rule 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
8. Fuel consumption shall not exceed 114,290 scf/day of natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 0.14 lb-NO_x/MMBtu, 0.00285 lb-SO_x/MMBtu, 0.0044 lb-PM₁₀/MMBtu, 0.035 lb-CO/MMBtu, or 0.0028 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
11. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. 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
16. {970} 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
17. {971} 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
18. {972} 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
19. {973} 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
20. {974} 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
21. {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
22. 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
23. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
24. Vessel 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
25. Permittee shall notify the District Compliance division at least 24 hours before vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit

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

26. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
27. 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 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
28. 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
29. 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
30. 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
31. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
32. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
33. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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. Copies of all fuel invoices showing quantity and delivery points of gas delivered and copies of quality terms of gas delivery contracts used 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
35. 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, 9.4.2] Federally Enforceable Through Title V Permit
36. The concentration of sulfur compounds in the exhaust from this unit shall demonstrate compliance using 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

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

37. Owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
38. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
39. Records of monthly and annual heat input of the unit shall be maintained. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
40. Records of tune-up and monitoring of the operational characteristics of the unit shall be maintained. [District Rules 4305 and 4306] 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, and 4306] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-72-9

EXPIRATION DATE: 12/31/2016

SECTION: 32 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-301)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. 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
11. {970} 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

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

12. {971} 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
13. {972} 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
14. {973} 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
15. {974} 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
16. {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
17. FWKO unit pressure relief valve (PRV) shall be inspected on an annual basis. During the inspections, the PRV can be removed from the FWKO unit and replaced if necessary. The permittee shall minimize emissions from the opening by plugging the opening during the removal of the varel. [District Rule 2080] Federally Enforceable Through Title V Permit
18. 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
19. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
20. Vessel 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 vessel cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the vessel. [District Rule 2080] Federally Enforceable Through Title V Permit
22. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Prior to venting the vessel to the atmosphere, operate the vessel vapor recovery system/vapor control device for at least 24 hours such that it collects the vessel 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 vessel volume is displaced; or 3) Vent the vessel 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 vessel to the vapor control system for a length of time determined by the following relationship: $t = 2.3 V/Q$, where t = time, V = vessel 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
These terms and conditions are part of the Facility-wide Permit to Operate.

23. 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 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 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
26. 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
27. To qualify for quantification of no fugitive emissions, operator shall conduct quarterly gas sampling after the TVR compressor (prior to connection to any other vapor control system); and at either the first line tank or at any secondary tank which is heated above ambient temperature. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sample frequency shall only be required annually and whenever there is a change in source or type of petroleum processed. Samples shall be collected during periods of normal operation, and not within 48 hours of routine maintenance or repair. [District NSR Rule] Federally Enforceable Through Title V Permit
28. VOC content of vapor in vessel vapor space shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
29. The permittee shall keep accurate records of VOC content of the recovered gas from the vessel 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

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-1121-73-9

EXPIRATION DATE: 12/31/2016

SECTION: 32 TOWNSHIP: 19S RANGE: 15E

EQUIPMENT DESCRIPTION:

33,293 GAL FWKO PRESSURE VESSEL USED TO SEPARATE PRODUCED OIL FROM WATER SERVED BY A PRESSURE RELIEF VALVE TO A VAPOR RECOVERY SYSTEM LISTED ON UNIT C-1121-45 (V-302)

PERMIT UNIT REQUIREMENTS

1. Pressure vessel shall maintain sufficient working pressure all the times that no organic liquid loss or VOC loss to the atmosphere shall occur. [District Rule 4623 and District NSR Rule] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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] Federally Enforceable Through Title V Permit
5. The tank shall only vent to the vapor collection system listed on C-1121-45. [District NSR Rule and District Rule 4623] Federally Enforceable Through Title V Permit
6. Maximum VOC content of vapor in the vessel vapor space shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Vessel shall vent only to vapor control system except during periods of tank cleaning/repair, vapor control system maintenance, and power outages. [District NSR Rule] Federally Enforceable Through Title V Permit
8. All components in vapor service shall be closed and leak-free (as defined in Rule 4623) except during sampling or attended maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Seams, welds, joints, piping, valves, and fittings shall be inspected and maintained in a leak-free (as defined in Rule 4623) condition. [District NSR Rule] Federally Enforceable Through Title V Permit
10. 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
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These terms and conditions are part of the Facility-wide Permit to Operate.

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ATTACHMENT C

Emissions Increases

There are no emissions increases as the result of this project.

ATTACHMENT D

Application



San Joaquin Valley Air Pollution Control District

www.valleyair.org



Permit Application For:

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO: C-1121-20-10, C-1121-24-6, C-1121-25-6, C-1121-26-6, C-1121-72-6, C-1121-73-6	
2. MAILING ADDRESS: STREET/P.O. BOX: <u>P.O. Box 11164</u> CITY: <u>Bakersfield</u> STATE: <u>CA</u> 9-DIGIT ZIP CODE: <u>93389-1164</u>	
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: STREET: <u>C-1121 Source</u> CITY: _____ _____ 1/4 SECTION _____ TOWNSHIP _____ RANGE _____	INSTALLATION DATE:
4. GENERAL NATURE OF BUSINESS: Oil and Gas Production	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary) Modify PTO C-1121-20-10, C-1121-24-6, C-1121-25-6, C-1121-26-6, C-1121-72-6, C-1121-73-6 to remove the following condition: "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." The cover letter dated May 4, 2016 contains the justification for removal of the above condition.	
6. TYPE OR PRINT NAME OF APPLICANT: Adean Valenzuela	TITLE OF APPLICANT: Compliance Assurance Specialist
7. SIGNATURE OF APPLICANT: 	DATE: <u>5/18/16</u> PHONE: (661) 665-5335 FAX: (661) 665-5202 EMAIL: <u>alvalenzuela@aeraenergy.com</u>

For APCD Use Only:

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____ DATE PAID: _____ PROJECT NO: _____ FACILITY ID: _____
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**San Joaquin Valley
Unified Air Pollution Control District**



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE
 MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: Aera Energy LLC	FACILITY ID: C - 1121
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Aera Energy LLC	
3. Agent to the Owner: N/A	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

[Signature]
 Signature of Responsible Official

5-19-2016
 Date

David L. Culbertson
 Name of Responsible Official (please print)

Process Supervisor
 Title of Responsible Official (please print)