



JAN 10 2012

Brad Elliot  
Seneca Resources  
2131 Mars Court  
Bakersfield, CA 93308

**Re: Notice of Preliminary Decision - Title V Permit Renewal  
District Facility # S-1114  
Project # S-1104114**

Dear Mr. Elliot:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Seneca Resources for its heavy oil facility at Heavy Oil Western, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,



David Warner  
Director of Permit Services

Attachments

C: Vanesa Gonzalez, Permit Services Engineer



JAN 10 2012

Gerardo C. Rios, Chief  
Permits Office (AIR-3)  
U.S. EPA - Region IX  
75 Hawthorne St.  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision – Title V Permit Renewal  
District Facility # S-1114  
Project # S-1104114**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Seneca Resources for its heavy oil facility at Heavy Oil Western, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

**Attachments**

C: Vanesa Gonzalez, Permit Services Engineer



JAN 10 2012

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Title V Permit Renewal  
District Facility # S-1114  
Project # S-1104114**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Seneca Resources for its heavy oil facility at Heavy Oil Western, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

**Attachments**

C: Vanesa Gonzalez, Permit Services Engineer

Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED RENEWAL OF  
THE FEDERALLY MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to Seneca Resources for its heavy oil facility at Heavy Oil Western, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1104114, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Proposed Title V Permit Renewal Evaluation  
Seneca Resources  
S-1114

## TABLE OF CONTENTS

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I.	PROPOSAL.....	2
II.	FACILITY LOCATION.....	2
III.	EQUIPMENT LISTING.....	3
IV.	GENERAL PERMIT TEMPLATE USAGE.....	3
V.	SCOPE OF EPA AND PUBLIC REVIEW.....	3
VI.	FEDERALLY ENFORCEABLE REQUIREMENTS.....	3
VII.	REQUIREMENTS NOT FEDERALLY ENFORCEABLE.....	5
VIII.	PERMIT REQUIREMENTS.....	6
IX.	PERMIT SHIELD.....	50
X.	PERMIT CONDITIONS.....	50
XI.	ATTACHMENTS.....	50
A.	DRAFT RENEWED TITLE V OPERATING PERMIT	
B.	PREVIOUS TITLE V OPERATING PERMIT	
C.	DETAILED FACILITY LIST	
D.	DISTRICT RULES 4401 AND 4702 STRIGENCY ANALYSIS	

**TITLE V PERMIT RENEWAL EVALUATION**  
**Oil and Natural Gas Production**

**Engineer:** Vanesa Gonzalez  
**Date:** December 20, 2011

**Facility Number:** S-1114  
**Facility Name:** Seneca Resources  
**Mailing Address:** 2131 Mars Court  
Bakersfield, CA 93308

**Contact Name:** Kevin Wright  
**Phone:** (702) 694-8004

**Responsible Official:** Brad Elliot  
**Title:** General Manager, Operations – West Division

**Project # :** S-1104114  
**Deemed Complete:** August 24, 2010

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**I. PROPOSAL**

Seneca Resources was issued a Title V permit on April 19, 2006. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

**II. FACILITY LOCATION**

Seneca Resources is located at Heavy Oil Western.

### **III. EQUIPMENT LISTING**

A detailed facility printout listing all permitted equipment at the facility is included as Attachment C.

### **IV. GENERAL PERMIT TEMPLATE USAGE**

The applicant is requesting to use the following model general permit Templates:

#### **A. Template SJV-UM-0-3 Facility Wide Umbrella**

The applicant has requested to utilize template No. SJV-UM-0-3, Facility Wide Umbrella. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

### **V. SCOPE OF EPA AND PUBLIC REVIEW**

Certain segments of the proposed Renewed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate from model general permit templates and are not subject to further EPA or public review.

Conditions 1 through 41 of the requirements for permit unit S-1114-0-3.

### **VI. FEDERALLY ENFORCEABLE REQUIREMENTS**

#### **A. Rules Updated**

District Rule 2020, Exemptions (amended December 19, 2002 ⇒ amended August 18, 2011)

District Rule 2201, New and Modified Stationary Source Review Rule  
(amended April 20, 2005 ⇒ amended April 21, 2011)

District Rule 4306, Boilers, Steam Generators, Process Heaters (amended  
March 17, 2005 ⇒ amended October 16, 2008)

District Rule 4307, Boilers, Steam Generators, and Process Heaters – 2.0  
MMBtu/hr to 5.0 MMBtu/hr (adopted December 15, 2005 ⇒ amended May 19,  
2011)

District Rule 4311, Steam-Enhanced Crude Oil Production Wells  
(amended June 20, 2002 ⇒ amended June 18, 2009)

District Rule 4401, Steam Enhanced Crude Oil Production (amended December  
14, 2006 ⇒ amended June 16, 2011)

District Rule 4702, Internal Combustion Engines - Phase 2 (adopted June 16,  
2005 ⇒ amended January 18, 2007)

## **B. Rules Removed**

District Rule 4403, Components Serving Light Crude oil Or Gasses at Light  
Crude Oil and Gas Production Facilities and Components at Natural Gas  
Processing

This rule has been removed and replaced with District Rule 4409.

District Rule 4701, Internal Combustion Engines - Phase 1

This rule has been removed and replaced with District Rule 4702.

## **C. Rules Added**

District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam  
Generators, and Process Heaters Greater Than 5.0 MMBtu/hr (Adopted October  
16, 2008)

District Rule 4409, Components at Light Crude Oil Production Facilities,  
Natural Gas Production Facilities, and Natural Gas Processing Facilities  
(adopted April 20, 2005)

40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark  
Ignition Internal Combustion Engines

40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

**D. Rules Not Updated**

District Rule 1070, Inspections (amended December 17, 1992)

District Rule 1081, Source Sampling (amended December 16, 1992)

District Rule 2520, Federally Mandate Operating Permits (amended October 19, 2006)

District Rule 4001, New Source Performance Standards (amended April 14, 1999)

District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)

District Rule 4301, Fuel Burning Equipment (amended December 17, 1992)

District Rule 4305, Boilers, Steam Generators, and Process Heaters – Phase II (amended August 21, 2003)

District Rule 4623, Storage of Organic Liquids (amended May 19, 2005)

**VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE**

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

**Rules Not Updated**

- District Rule 4102, Nuisance (as amended December 17, 1992)

Condition 42 of permit unit -0-2 are based on District Rule 4102 and will therefore not be discussed any further.

## VIII. PERMIT REQUIREMENTS

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit.

### A. District Rule 2201 - New and Modified Stationary Source Review Rule

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.26, defined as an action including at least one of the following items:

- 1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- 2) Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- 3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

### B. District Rule 2020 – Exemptions

District Rule 2020 lists equipment which are specifically exempt from obtaining permits, and specifies recordkeeping requirements to verify such exemptions. The rule was amended on August 18, 2011. The amendments to this rule do not have any effect on current permit requirements and will therefore not be addressed in this evaluation.

Condition 4 of permit -0-3 ensures compliance.

### C. District Rule 2520 – Federally Mandated Operating Permits

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an

applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

**D. District Rule 4306 – Boilers, Steam Generators, and Process Heaters – Phase 3**

This rule applies to any boiler, steam generator or process heater, with a rated heat input greater than 5 million Btu per hour.

Section 5.1 requires that NO<sub>x</sub> and CO emissions shall not exceed the limits specified in Table 1. For steam generators at oilfields (Table 1 Category C), NO<sub>x</sub> and CO emissions shall not exceed 15 ppmv and 400 ppmv, respectively.

- a. S-1114-10-27: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '74

Condition 26 of the permit requirements ensures compliance with this section.

- b. S-1114-15-17: 12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

Condition 2 of the permit requirements ensures compliance with this section.

- c. S-1114-16-20: 85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 1 of the permit requirements ensures compliance with this section.

- d. S-1114-20-15: 62.5 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

Condition 13 of the permit requirements ensures compliance with this section.

- e. S-1114-74-12: 62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

Conditions 15 and 16 of the permit requirements ensure compliance with this section.

- f. S-1114-83-8: NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

Condition 2 of the permit requirements ensures compliance with this section.

- g. S-1114-84-9: NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

Condition 2 of the permit requirements ensures compliance with this section.

- h. S-1114-107-3: 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

Condition 5 of the permit requirements ensures compliance with this section.

- i. S-1114-111-1: 85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 1 of the permit requirements ensures compliance with this section.

Section 5.2, applies to units limited to less than 9 billion Btu per calendar year heat input. Since this facility has no units limited to 9 billion Btu per calendar year this section does not apply and will not be discussed any further.

Section 5.3 contains start up and shut down provisions. The units at this facility will not use these provisions.

Section 5.4 requires that operators of any unit subject to the applicable emission limits of the rule shall install and maintain an operational APCO approved Continuous Emissions Monitoring System (CEMS) for NO<sub>x</sub>, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. The facility is proposing to implement stack concentration of NO<sub>x</sub>, CO and O<sub>2</sub> monthly monitoring.

Section 5.5 contains monitoring determination.

- a. S-1114-10-27: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '74

Conditions 36, 37, 38, and 55 of the permit requirements ensure compliance with these sections.

- b. S-1114-15-17: 12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

Condition 3, 4, 5, 8, 10, and 15 of the permit requirements ensure compliance with these sections.

- c. S-1114-16-20: 85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 6, 7, 8, 10, 11, and 23 of the permit requirements ensure compliance with these sections.

- d. S-1114-20-15: 62.5 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

Condition 14, 15, 16, 18, 19, and 20 of the permit requirements ensure compliance with these sections.

- e. S-1114-74-12: 62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

Condition 27, 28, 29, and 48 of the permit requirements ensure compliance with these sections.

- f. S-1114-83-8: NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

Condition 3, 4, 5, 8, 10, and 15 of the permit requirements ensure compliance with these sections.

- g. S-1114-84-9: NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

Condition 3, 4, 5, 8, 10, and 15 of the permit requirements ensure compliance with these sections.

- h. S-1114-107-3: 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

Condition 9, 10, 14, 17, 18, and 19 of the permit requirements ensure compliance with these sections.

- i. S-1114-111-1: 85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 6, 7, 8, 10, 11, and 23 of the permit requirements ensure compliance with these sections.

Section 6.1 requires that records shall be maintained for five calendar years and shall be made available to the APCO upon request.

Section 6.2 identifies the applicable test methods.

Section 6.3 requires that units subject to the requirements in Sections 5.1 or 5.2.3 shall be source tested to determine compliance with the applicable emission limits at least once every 12 months.

- a. S-1114-10-27: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '74

Conditions 27, 28, 29, 31, 35, and 39 of the permit requirements ensure compliance with these sections.

- b. S-1114-15-17: 12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

Condition 6, 9, 12, 13, and 14 of the permit requirements ensure compliance with these sections.

- c. S-1114-16-20: 85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 9, 12, 17, and 24 of the permit requirements ensure compliance with these sections.

- d. S-1114-20-15: 62.5 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

Condition 17, 22, 23, 24, 25, and 30 of the permit requirements ensure compliance with these sections.

- e. S-1114-74-12: 62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

Condition 18, 19, 20, 22, 26, 30, and 49 of the permit requirements ensure compliance with these sections.

- f. S-1114-83-8: NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

Condition 6, 9, 12, 13, 14, and 21 of the permit requirements ensure compliance with these sections.

- g. S-1114-84-9: NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

Condition 6, 9, 12, 13, 14, and 21 of the permit requirements ensure compliance with these sections.

- h. S-1114-107-3: 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

Condition 8, 11, 16, 20, and 23 of the permit requirements ensure compliance with these sections.

- i. S-1114-111-1: 85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 9, 12, 17, and 24 of the permit requirements ensure compliance with these sections.

**E. District Rule 4307 – Boilers, Steam Generators, and Process Heaters - 2.0 MMBtu/hr to 5.0 MMBtu/hr**

The current version of this rule (5/19/11) is not SIP approved. However, the unit subject to this rule is only required to meet Section 5.2, 7.3 and 7.4 of the Rule 4307. There have been no modification to Section 5.2, 7.3 and 7.4 from the SIP approved version (10/16/08) and the current version (5/19/11). Therefore, in this case the requirements of the non-SIP version of this rule (5/19/11) are as stringent as the SIP approved version of this rule (10/16/08).

The purpose of this rule is to limit emissions of oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), oxides of sulfur (SO<sub>2</sub>), and particulate matter 10

microns or less (PM10) from boilers, steam generators, and process heaters. This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input of 2.0 million Btu per hour (MMBtu/hr) up to and including 5.0 MMBtu/hr.

Section 5.1 contains NO<sub>x</sub> and CO emissions limits for all units except those subject to Section 5.2. Unit S-1114-91 is subject to Section 5.2. Therefore, this section will not be discussed any further.

5.2 Operators shall meet the following requirements as applicable.

Per 5.2.1, Until June 30, 2015, for each existing atmospheric unit operated in an oilfield or refinery; each glycol reboiler; or each unit limited to no more than 5.0 billion Btu per calendar year heat input pursuant to a Permit to Operate or Permit-Exempt Equipment Registration, the operator shall comply with Section 5.5.2, Section 7.3, Section 7.4, and either Section 5.2.1.1, 5.2.1.2, or 5.2.1.3.

5.2.1.1 Tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). 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; or

5.2.1.2 Operate the unit in a manner that maintains exhaust oxygen concentrations at less than or equal to 3.00 percent by volume on a dry basis; or

5.2.1.3 Certify the unit according to Section 9.0 to comply with the applicable emission requirements of Section 5.1 Table 1.

5.2.2 On and after July 1, 2015, for each unit limited to no more than 1.8 billion Btu per calendar year heat input pursuant to a Permit to Operate or Permit-Exempt Equipment Registration, the operator shall comply with Section 5.5.2, Section 7.3, Section 7.4, and either Section 5.2.1.1, 5.2.1.2, or 5.2.1.3.

5.2.3 On and after July 1, 2015, for each existing atmospheric unit in an oilfield or refinery; each glycol reboiler; or each unit with a heat input greater than 1.8 billion Btu to less than 5.0 billion Btu per calendar year, the operator shall comply with the applicable emission requirements of Section 5.1 Table

1. The operator shall comply with the compliance requirements and deadlines specified for Group 3 units in Section 7.1

a. S-1114-91-4: 4.0 MMBTU/HR LEASE GAS-FIRED BOILER - STAR SECURITY LEASE

Conditions 5 and 6 of the permit requirements ensure compliance with this section.

Per Section 5.2.1 unit S-1114-91 does not have to meet the requirements of Sections 5.3 and 5.4. Therefore, Sections 5.3 and 5.4 will not be discussed.

Per Section 5.5.2 the operator of any unit limited to the annual heat input specified in Section 5.2.1 or Section 5.2.2 shall install and maintain an operational non-resettable, totalizing mass or volumetric flow meter in each fuel line to each unit. Since unit S-1114-91 does not have a usage limit this section is not applicable.

**F. District Rule 4311 Steam-Enhanced Crude Oil Production Wells**

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NO<sub>x</sub>), and sulfur oxides (SO<sub>x</sub>) from the operation of flares.

Per Section 5.0 the operator of any source subject to this rule shall comply with the following requirements:

- 5.1 Flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.
- 5.2 The flame shall be present at all times when combustible gases are vented through the flare.
- 5.3 The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares.
- 5.4 Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an alternative equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated.
- 5.5 Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging.
- 5.6 Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a

manner that meets the provisions of 40 CFR 60.18. The requirements of this section shall not apply to Coanda effect flares.

- 5.7 This requirement applies to ground-level enclosed flares.
- 5.8 This section applies to flare subject to flare minimization requirements. This flare is not subject to the flare minimization requirements per section 6.5.1. Therefore this section is not applicable and will not be discussed any further.
- 5.9 Petroleum Refinery SO<sub>2</sub> Performance Targets - Effective on and after January 1, 2011, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 1.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year. Effective on and after January 1, 2017, the operator of a petroleum refinery shall minimize sulfur dioxide flare emissions to less than 0.50 tons per million barrels of crude processing capacity, calculated as an average over one calendar year.
- 5.10 Effective on and after July 1, 2011, the operator of a flare subject to flare minimization requirements pursuant to Section 5.8 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare.
- 5.11 Effective on and after July 1, 2011, the operator of a petroleum refinery or a flare with a flaring capacity equal to or greater than 50 MMBtu/hr shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10.

- a. S-1114-73-6: 20 MMBTU/HR FLARE, 3 IN DIA X 12 FT TALL, SERVING PRIMARY PRODUCTION WELL VENT VAPOR CONTROL SYSTEM, TANK BATTERY '-54 VAPOR CONTROL SYSTEM, & TEOR WELL VENT VAPOR CONTROL SYSTEM '-100 (STAR LEASE)

Conditions 7, 9 through 10, 14 and 16 of the permit requirements ensure compliance with these sections.

Per section 6.0 the following records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

- Copy of the compliance determination conducted pursuant to Section 6.4.1.
- Copy of the source testing result conducted pursuant to Section 6.4.2.

- For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.
- Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.
- Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5.
- Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.
- Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10.

Section 6.2, applies to flare subject to flare minimization requirements. This flare is not subject to the flare minimization requirements per section 6.5.1. Therefore this section is not applicable and will not be discussed any further.

Section 6.3 contains test methods for this rule.

Section 6.4, Compliance Determination applies to unit subject to section 5.6 and ground level flares. Therefore the flare is not subject to this section and will not be discussed any further.

Section 6.5 contains the requirements for the flare minimization plan.

Sections 6.6, through 6.10 apply to the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour. Since the flare at this facility is not a refinery flare or a flare with a capacity greater than 50 MMBtu/hr, these sections do not apply to the flare and will not be discussed any further.

- a. S-1114-73-6: 20 MMBTU/HR FLARE, 3 IN DIA X 12 FT TALL, SERVING PRIMARY PRODUCTION WELL VENT VAPOR CONTROL SYSTEM, TANK BATTERY '54 VAPOR CONTROL SYSTEM, & TEOR WELL VENT VAPOR CONTROL SYSTEM '100 (STAR LEASE)

Conditions 15, 17, and 18 of the permit requirements ensure compliance with this section.

**G. District Rule 4320 - Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5 MMBtu/hr**

The purpose of this rule is to limit emissions of oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), oxides of sulfur (SO<sub>2</sub>), and particulate matter 10

microns or less (PM10) from boilers, steam generators, and process heaters. This rule applies to any gaseous fuel or liquid fuel fired boiler, steam generator, or process heater with a total rated heat input greater than 5 million Btu per hour.

Per Section 5.1 An operator of a unit(s) subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

- Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
- Comply with the applicable Low-use Unit requirements of Section 5.5.

The facility will comply with the emissions limits in sections 5.2 and 5.4 for all its units subject to this rule.

Category	NOx Limit	Authority to Construct	Compliance Date
<b>C. Oilfield steam Generators</b>			
1. Units with a total rated heat input > 5.0 MMBtu/hr to < 20.0 MMBtu/hr	a) Standard Schedule 9ppmv or 0.011 lb/MMBtu; or	July 1, 2011	July 2, 2012
	b) Enhanced Schedule 6 ppmv or 0.007 lb/MMBtu/hr	January 1, 2013	January 1, 2014
2. Units with total rated heat input > 20.0 MMBtu/hr	a) Standard Schedule 7 ppmv or 0.011 lb/MMBtu; or	July 1, 2009	July 1, 2010
	b) Staged Enhanced Schedule Initial Limit 9ppmv or 0.011 lb/MMBtu; and	July 1, 2011	July 1, 2012
	Final Limit 5 ppmv or 0.0062 lb/MMBtu	January 1, 2013	January 1, 2014
3. Units firing on less than 50%, by volume, PUC quality gas.	Staged Enhance Schedule Initial Limit 12 ppmv or 0.014 lb/MMBtu; and	July 1, 2010	July 1, 2011
	Final Limit 9 ppmv or 0.011 lb/MMBtu	January 1, 2013	January 1, 2014

Section 5.3 does not apply to any units at this facility therefore it will not be discussed any further.

#### 5.4 Particulate Matter Control Requirements

Per 5.4.1 to limit particulate matter emissions, an operator shall comply with one of the following requirements:

- 5.4.1.1 On and after the applicable NO<sub>x</sub> Compliance Deadline specified in Section 5.2 Table 1, operators shall fire units exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;
- 5.4.1.2 On and after the applicable NO<sub>x</sub> Compliance Deadline specified in Section 5.2 Table 1, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
- 5.4.1.3 On and after the applicable NO<sub>x</sub> Compliance Deadline specified in Section 5.2 Table 1, operators shall install and properly operate an emission control system that reduces SO<sub>2</sub> emissions by at least 95% by weight; or limit exhaust SO<sub>2</sub> to less than or equal to 9 ppmv corrected to 3.0% O<sub>2</sub>.
- 5.4.1.4 Notwithstanding the compliance deadlines indicated in Sections 5.4.1.1 through 5.4.1.3, refinery units, which require modification of refinery equipment to reduce sulfur emissions, shall be in compliance with the applicable requirement in Section 5.4.1 no later than July 1, 2013.

Per 5.4.2 Liquid fuel shall be used only during PUC quality natural gas curtailment periods, provided the requirements of Sections 4.2 and 6.1.5 are met and the fuel contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.2.

Section 5.5 applies to low use units. The facility does not have any units that meet the criteria for low use. Therefore, this section will not be discussed any further.

Section 5.6 contains start up and shut down provisions. The units at this facility will not use these provisions.

Section 5.7 requires either use of a APCO approved Continuous Emissions Monitoring System (CEMS) for NO<sub>x</sub>, CO, and oxygen, or implementation of an APCO-approved Alternate Monitoring System.

In order to satisfy the requirements of District Rule 4320, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to

District Policy SSP-1105), which requires that monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- a. S-1114-10-27: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '74

Conditions 8 through 11 and 26 of the permit requirements ensure compliance with these sections.

- b. S-1114-15-17: 12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

The facility has submitted an ATC application to bring this unit into compliance with this rule by July 2, 2012.

- c. S-1114-16-20: 85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 1, 6, 7, 8, 10, and 11 of the permit requirements ensure compliance with these sections.

- d. S-1114-20-15: 62.5 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

Condition 8, 9, 10, 11, 13, 14, 15, 16, 18, 19, and 20 of the permit requirements ensure compliance with these sections.

- e. S-1114-74-12: 62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

Condition 9, 10, 11, 15, 16, 27, 28, and 29 of the permit requirements ensure compliance with these sections.

- f. S-1114-83-8: NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

The facility has submitted an ATC application to bring this unit into compliance with this rule by July 2, 2012.

- g. S-1114-84-9: NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

The facility has submitted an ATC application to bring this unit into compliance with this rule by July 2, 2012.

- h. S-1114-107-3: 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

Condition 5, 9, 10, 14, 17, 18, and 19 of the permit requirements ensure compliance with these sections.

- i. S-1114-111-1: 85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 1, 6, 7, 8, 10, 11, and 23 of the permit requirements ensure compliance with these sections.

Section 6.1 requires that records shall be maintained for five calendar years and shall be made available to the APCO upon request.

Section 6.2 identifies the applicable test methods.

Section 6.3 requires that units subject to the requirements in Sections 5.1 or 5.2.3 shall be source tested to determine compliance with the applicable emission limits at least once every 12 months.

- a. S-1114-10-27: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '-74

Conditions 27, 28, 29, 31, and 35 through 39 of the permit requirements ensure compliance with these sections.

- b. S-1114-15-17: 12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

The facility has submitted an ATC application to bring this unit into compliance with this rule by July 2, 2012.

- c. S-1114-16-20: 85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 9, 12, 17, and 24 of the permit requirements ensure compliance with these sections.

- d. S-1114-20-15: 62.5 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

Condition 17, 22, 23, 24, 25, and 30 of the permit requirements ensure compliance with these sections.

- e. S-1114-74-12: 62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

Condition 12,18, 19, 20, 22, 26, 30, and 49 of the permit requirements ensure compliance with these sections.

- f. S-1114-83-8: NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

The facility has submitted an ATC application to bring this unit into compliance with this rule by July 2, 2012.

- g. S-1114-84-9: NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

The facility has submitted an ATC application to bring this unit into compliance with this rule by July 2, 2012.

- h. S-1114-107-3: 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

Condition 8, 11, 16, 20, and 23 of the permit requirements ensure compliance with these sections.

- i. S-1114-111-1: 85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

Condition 9, 12, 17, and 24 of the permit requirements ensure compliance with these sections.

#### **H. District Rule 4401 - Steam-Enhanced Crude Oil Production Wells**

Current District Rule 4401 (6/16/11) is Non-SIP approved. As shown in Attachment D of this document the current Non-SIP approved District Rule 4401 (6/16/11) is as stringent as SIP approved District Rule 4401 (12/16/06). Therefore, permit compliance will be based on compliance with the current Non-SIP approved version of Rule 4401 (6/16/11) as discussed below.

The purpose of this rule is to limit the VOC emissions from steam-enhanced crude oil production wells. This rule is applicable to all steam-enhanced crude oil production wells and any associated vapor collection and control systems.

Per Section 5.1, an operator shall not operate a steam-enhanced crude oil production well unless the operator complies with the requirements of either Section 5.1.1 or Section 5.1.2.

- The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.
- The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0.

a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Condition 11 of the permit requirements ensures compliance with these sections.

b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Condition 13 of the permit requirements ensures compliance with these sections.

Section 5.2 has the determination of compliance with the leak standards. Per Section 5.2.1, an operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.4 demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility. Section 5.6.2 contains leak standards.

a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 12 and 13 of the permit requirements ensure compliance with these sections.

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 14 and 15 of the permit requirements ensure compliance with these sections.

- 5.3 An operator shall comply with the following operating requirements:
- An operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.6.2. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of this rule.
  - Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.
  - An operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components.

- a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 14, 15, and 16 of the permit requirements ensure compliance with these sections.

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 16, 17, and 18 of the permit requirements ensure compliance with these sections.

Section 5.4 contains inspection and re-inspection requirements.

- a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 17 through 22 of the permit requirements ensure compliance with these sections.

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 19 through 24 of the permit requirements ensure compliance with these sections.

Section 5.5 contains leak repair requirements.

- a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 23 through 30 of the permit requirements ensure compliance with these sections.

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 25 through 32 of the permit requirements ensure compliance with these sections.

Per 6.1 an operator shall maintain the records required by Sections 6.1 and Section 6.2 for a period of five (5) years. These records shall be made available to the APCO, California Air Resources Board (ARB), and EPA upon request. This section also list specific records that must be kept by the facility.

- a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 31 through 39, and 51 of the permit requirements ensure compliance with these sections.

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 33 through 41, and 53 of the permit requirements ensure compliance with these sections.

Section 6.2 contains this rules compliance source testing requirements. The test methods for the compliance source testing requirements are included in Section 6.3 of this rule.

- a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 40 through 46 of the permit requirements ensure compliance with these sections.

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 42 through 48 of the permit requirements ensure compliance with these sections.

Per Section 6.4, requires an operator to keep an inspection log. This section also lists the minimum requirements for the inspection log.

- a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Condition 47 of the permit requirements ensures compliance with these

- b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Condition 49 of the permit requirements ensures compliance with these

Per Section 6.5, an operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary.

Per Section 6.6, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0 of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan (OMP) for approval by the APCO. This section also included the minimum requirements for the OMP

Per Section 6.7, by January 30 of each year after 2008, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing

a. S-1114-66-18: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

Conditions 48, 49, and 50 of the permit requirements ensure compliance with these sections.

b. S-1114-100-4: 20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

Conditions 50, 51, and 52 of the permit requirements ensure compliance with these sections.

**I. District Rule 4409 – Components at Light Crude Oil Production Facilities Natural Gas Production Facilities, and Natural Gas Processing Facilities**

The purpose of this rule is to limit VOC emissions from leaking components at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities. This rule shall apply to components containing or contacting VOC streams at light crude oil production facilities, natural gas production facilities, and natural gas processing facilities.

Section 5.0 contains this rules requirements. This section includes the following requirements.

- 5.1 Operating Requirements
- 5.2 Inspection and Re-Inspection Requirements
- 5.3 Maintenance Requirements
- 5.4 Component Identification Requirements

- a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 22 through 59 of the permit requirements ensure compliance with these sections.

Section 6.0 contains this rules administrative requirements. This section includes the following requirements.

- 6.1 Operating Management Plan
- 6.2 Inspection Log
- 6.3 Test Methods

- a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 60 through 72 of the permit requirements ensure compliance with these sections.

#### **J. District Rule 4702 – Internal Combustion Engine – Phase 2**

The rule was amended on August 18, 20011 but has not been SIP approved. The stringency analysis in Attachment F shows that the amended rule is as stringent as the SIP approved version of the rule (January 18, 2007).

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

Section 5.1 applies to non-agricultural engines rated between 25 and 50 bhp. The engines at this facility are rated greater than 50 bhp. Therefore, this section does not apply.

Section 5.2.1 states the operator of a spark-ignited IC engine rated greater than 50 bhp that is used exclusively in non-agricultural operations (AO) shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emissions limits pursuant to Section 8.0.

<b>Table 1: Rule 4702 Emission Limits</b>			
Engine Type	NO <sub>x</sub> Emission Limit (ppmv @ 15% O <sub>2</sub> , dry)	CO Emission Limit (ppmv @ 15% O <sub>2</sub> , dry)	VOC Emission Limit (ppmv @ 15% O <sub>2</sub> , dry)
<b>1. Rich-Burn</b>			
a. Waste Gas Fueled	50 ppmv or 90% reduction	2000	250
b. Cyclic Loaded, Field Gas Fueled	50	2000	250
c. All other engines	25 ppmv or 96% reduction	2000	250
<b>2. Lean-Burn Engines</b>			
a. Two-Stroke, Gaseous Fueled, < 100 hp	75 ppmv or 85% reduction	2000	750
b. All other engines	65 ppmv or 90% reduction	2000	750

Section 5.2.2 states on and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine > 50 bhp that is used in non-AO shall comply with all of the applicable requirements of the rule and one of the following, on an engine-by-engine basis:

5.2.2.1 On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine that is used exclusively in non-AO shall comply with the following requirements on an engine-by-engine basis:

5.2.2.1.1 NO<sub>x</sub>, CO, and VOC emission limits pursuant to Table 2;

5.2.2.1.2 SO<sub>x</sub> control requirements of Section 5.7, pursuant to the deadlines specified in Section 7.5; and

5.2.2.1.3 Monitoring requirements of Section 5.10, pursuant to the deadlines specified in Section 7.5.

5.2.2.2 In lieu of complying with the NO<sub>x</sub> emission limit requirement of Section 5.2.2.1.1, an operator may pay an annual fee to the District, as specified in Section 5.6, pursuant to Section 7.6.

5.2.2.3 In lieu of complying with the NO<sub>x</sub>, CO, and VOC limits of Table 2 on an engine-by-engine basis, an operator may elect to implement an alternative emission control plan pursuant to Section 8.0. An

operator electing this option shall not be eligible to participate in the fee payment option outlined in Section 5.2.2.2 and Section 5.6.

<b>Table 2: Rule 4702 Emission Limits</b>			
<b>Engine Type</b>	<b>NO<sub>x</sub> Emission Limit (ppmv @ 15% O<sub>2</sub>, dry)</b>	<b>CO Emission Limit (ppmv @ 15% O<sub>2</sub>, dry)</b>	<b>VOC Emission Limit (ppmv @ 15% O<sub>2</sub>, dry)</b>
<b>1. Rich-Burn</b>			
d. Waste Gas Fueled	50	2000	250
e. Cyclic Loaded, Field Gas Fueled	50	2000	250
f. Limited Use	25	2000	250
g. Rich-Burn Engine, not listed above	11	2000	250
<b>2. Lean-Burn Engines</b>			
c. Two-Stroke, Gaseous Fueled, > 50 bhp and < 100 hp	75	2000	750
d. Limited Use	65	2000	750
e. Lean-Burn Engine used for gas compression	65 ppmv or 93% reduction	2000	750
h. Lean-Burn Engine, not listed above	11	2000	750

The engines listed above are four-stroke rich-burn engines fired on natural gas. Therefore, the engine falls under category 1.c of Table 2 (Rich-Burn Engine, not listed above). Per the compliance schedules in Section 7.5, the compliance date for this is January 1, 2014. Therefore, operation of this engine after the applicable compliance date will not be authorized until the facility applies for and is issued an Authority to Construct permit approving all necessary retrofits and permit changes required to comply with this rule. Compliance with Table 2 emissions limits for this engine will be shown at that time.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Condition 3 of the permit requirements ensures compliance with this section.

Section 5.2.3 applies to spark-ignited engines used exclusively in agricultural operations (AO). The engines at the facility are not used for AO. Therefore, this section does not apply.

Section 5.2.4 applies to certified compression-ignited engines. The engines are not compression-ignited. Therefore, this section does not apply.

Section 5.2.5 applies to non-certified compression-ignited engines. The engines are not compression-ignited. Therefore, this section does not apply.

Section 5.3 applies to engines equipped with a continuous emission monitoring system (CEMS). The engines are not equipped with CEMS. Therefore, this section does not apply.

Sections 5.4 and 5.5 apply to units complying with this rule using percent emission reductions. The engine will not use percent emissions reduction to show compliance with this rule. Therefore, this section does not apply.

Section 5.6 applies to operators who elect to pay an annual fee in lieu of complying with the NO<sub>x</sub> emission limit requirements of Section 5.2.2.1.1. The facility has not elected to pay fees at this time. Therefore, this section does not apply.

Section 5.7 states that on and after the compliance schedule specified in Section 7.5, operators of non-AO spark-ignited engines and non-AO compression-ignited engines shall comply with one of the following requirements:

- 5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or
- 5.7.2 Limit gaseous fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
- 5.7.3 Use California Reformulated Gasoline for all gasoline-fired spark-ignited engines; or
- 5.7.4 Use California Reformulated Diesel for all compression-ignited engines; or

- 5.7.5 Operate the engine on liquid fuel that contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.4.6; or
- 5.7.6 Install and properly operate an emission control system that reduces SO<sub>2</sub> emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Condition 2 of the permit requirements ensures compliance with this section.

Section 5.8.1 states that for each engine with a rated brake horsepower of 1,000 hp or greater and which is permitted to operate more than 2,000 hours per calendar year, or with an external emission control device, shall either install, operate, and maintain continuous monitoring equipment for NO<sub>x</sub>, CO, and oxygen, as identified in Rule 1080 (Stack Monitoring), or install, operate, and maintain APCO-approved alternate monitoring. The monitoring system may be a continuous emissions monitoring system (CEMS), a parametric emissions monitoring system (PEMS), or an alternative monitoring system approved by the APCO. APCO-approved alternate monitoring shall consist of one or more of the following:

- Periodic NO<sub>x</sub> and CO emission concentrations,
- Engine exhaust oxygen concentration,
- Air-to-fuel ratio,
- Flow rate of reducing agents added to engine exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Other operational characteristics.

The engine currently meets the requirements of Section 5.8.1 by following pre-approved alternate monitoring procedure "A", Monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> Concentrations, as given in District Policy SSP 1810, Emissions Monitoring for Rules 4701 and 4702.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Condition 4 of the permit requirements ensures compliance with this section.

Section 5.8.2 requires engines not subject to 5.8.1 to have their operational characteristics monitored as recommended by the engine manufacturer or emission control system supplier, and approved by the APCO. The engines are subject to Section 5.8.1; therefore, Section 5.8.2 is not applicable.

Section 5.8.3 requires each engine using an alternative monitoring system to submit to and receive approval from the APCO adequate verification of the alternative monitoring system's acceptability. The applicant has satisfied the requirements of Section 5.8.3 by using a District pre-approved alternate monitoring procedure as indicated in Section 5.8.1 above.

Section 5.8.4 requires IC engines equipped with CEMS to operate the CEMS in compliance with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Appendix B (Performance Specifications), 40 CFR Appendix F (Quality Assurance Procedures), and applicable provisions of Rule 1080 (Stack Monitoring). The engine at the facility is not equipped with CEMS; therefore, Section 5.8.4 is not applicable.

Section 5.8.5 requires that the APCO approve the data gathering and retrieval capabilities of an installed monitoring system. Section 5.8.5 is not applicable since the applicant is not using an installed monitoring system on the engine.

Section 5.8.6 requires the operator to install and operate a nonresettable elapsed operating time meter. In lieu of installing a nonresettable time meter, the owner or operator may use an alternative device, method, or technique in determining operating time provided that the alternative is approved by the APCO and is allowed by Permit-to-Operate or Stationary Equipment Registration condition. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

- a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Condition 17 of the permit requirements ensures compliance with this section.

Section 5.8.7 requires that for each engine, the permittee implement the Inspection and Monitoring (I&M) plan, if any, submitted to and approved by the APCO pursuant to Section 6.5. The pre-approved alternate emissions monitoring procedure used in Section 5.8.1 above will satisfy the

requirements of Section 5.8.7. Therefore, compliance with Section 5.8.7 is expected.

Section 5.8.8 requires the operator to collect data through the I&M plan in a form approved by the APCO. By following the pre-approved alternate emissions monitoring procedure proposed in Section 5.8.1 above, the applicant will be collecting data in a form approved by the APCO. Therefore, compliance with Section 5.8.8 is expected.

Section 5.8.9 requires that the operator use a portable NO<sub>x</sub> analyzer to take NO<sub>x</sub> emission readings to verify compliance with the emission requirements of Section 5.2 or Section 8.0 during each calendar quarter in which a source test is not performed.

- 5.8.9.1 If an engine is operated less than 120 calendar days per calendar year, take one NO<sub>x</sub> emission reading during the calendar year in which a source test is not performed and the engine is operated.
- 5.8.9.2 All emission readings shall be taken with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration.
- 5.8.9.3 The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO.
- 5.8.9.4 All NO<sub>x</sub> emissions readings shall be reported to the APCO in a manner approved by the APCO.
- 5.8.9.5 NO<sub>x</sub> emission readings taken pursuant to this section shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five (5) readings evenly spaced out over the 15 consecutive-minute period.

The alternate monitoring procedure proposed in Section 5.8.1 above, and all related permit conditions, will satisfy the requirements of Section 5.8.9. Therefore, compliance with Section 5.8.9 is expected.

Section 5.8.10 requires documentation that an alternative monitoring system provides a reasonable assurance of compliance with applicable emission limits. By following the pre-approved alternate emissions monitoring procedure proposed in Section 5.8.1 above, the applicant has satisfied the requirement of Section 5.8.10.

Section 5.8.11 requires that for each engine subject to Section 8.0, a nonresettable fuel meter be installed and operated. The engines are not

subject to Section 8.0. However, as previously discussed in Section 5.8.6, the engine is already required to have a nonresettable fuel meter.

Section 5.9 lists monitoring requirements for all other engines not subject to the monitoring requirements of Section 5.8. The engines are subject to the monitoring requirements of Section 5.8. Therefore, this section does not apply.

Section 5.10 lists SO<sub>x</sub> emissions monitoring requirements for engines that satisfy the SO<sub>x</sub> emission control requirements of Section 5.7. The engine at this facility shall perform an annual sulfur fuel analysis in accordance with the test methods in Section 6.4. The operator shall keep the records of the fuel analysis and shall provide it to the District upon request.

Section 5.11 applies to engines used in AO subject to Permit-Exempt Equipment Registration. The engines are not used in AO. Therefore, this section does not apply.

Section 6.1 requires that the operator of an engine subject to the requirements of Section 5.2 shall submit to the APCO an emission control plan of all actions to be taken to satisfy the emission requirements of Section 5.2 and the compliance schedules of Section 7.0. The facility will have until July 1, 2012 to submit an emission control plan of all actions to be taken to show compliance with Table 2 emission limits.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 4, 17, and 12 of the permit requirements ensure compliance with these sections.

Section 6.2.1 states the operator of an engine subject to the requirements of Section 5.2 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and

- Any other information necessary to demonstrate compliance with this rule.

Section 6.2.2 requires that the data collected pursuant to the requirements of Section 5.8 and Section 5.9 shall be maintained for at least five years, shall be readily available, and made available to the APCO upon request.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 20 and 64 of the permit requirements ensure compliance with these sections.

Section 6.2.3 applies to operators claiming an exemption under Section 4.2 or Section 4.3. The engine is not exempt from any requirements under Sections 4.2 or 4.3. Therefore, this section does not apply.

Section 6.3.1 states the requirements of Section 6.3.2 through 6.3.4 shall apply to the following engines:

- Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0;
- Engines subject to Section 8.0;
- An AO spark-ignited engine that is subject to the requirements of Section 8.0;
- An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0.

The engine has an exhaust control device. Therefore, Sections 6.3.2 through 6.3.4 apply.

Section 6.3.2 requires owners to demonstrate compliance with applicable limits in accordance with the test methods in Section 6.4 by the applicable date specified in Section 5.2, and at least once every 24 months thereafter.

Section 6.3.3 requires owners to conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Stationary Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic average of three (3) 30-consecutive minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC shall be reported as methane. VOC, NO<sub>x</sub>, and CO

concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported.

Section 6.3.4 states that in addition to other information, the source test protocol shall describe which critical parameters will be measured and how the appropriate range for these parameters shall be established. The range for these parameters shall be incorporated into the I&M plan.

Section 6.3.5 states engines that are limited by Permit-to-Operate or Permit-Exempt Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 7, 11, 18, and 19 of the permit requirements ensure compliance with this section.

Section 6.3.6 allows for representative testing from a unit or units that represents a specified group of units. The facility does not conduct representative testing for the engine. Therefore, this section does not apply.

Section 6.4 requires that the compliance with the requirements of Section 5.2 shall be determined in accordance with the following test procedures or any other method approved by EPA and the APCO:

- Oxides of nitrogen - EPA Method 7E, or ARB Method 100.
- Carbon monoxide - EPA Method 10, or ARB Method 100.
- Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.
- Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the test.
- Operating horsepower determination - any method approved by EPA and the APCO.
- Oxides of sulfur – EPA Method 6C or 8, or ARB Method 100.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Condition 11 of the permit requirements ensures compliance with this section.

Section 6.5 requires that the operator of an engine subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall submit to the APCO for approval an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.8. The actions to be identified in the I&M plan shall include, but are not limited to, the following requirements listed in Sections 6.5.2 through 6.5.9. If there is not change to the previously approved I&M plan, the operator shall submit a letter to the District indicating that previously approved plan is still valid.

Section 6.5.1 states the requirements of Section 6.5.2 through 6.5.9 shall apply to the following engines:

- Engines that have been retrofitted with an exhaust control device, except those certified per Section 9.0;
- Engines subject to Section 8.0;
- An AO spark-ignited engine that is subject to the requirements of Section 8.0;
- An AO spark-ignited engine that has been retrofitted with a catalytic emission control and is not subject to the requirements of Section 8.0.

The engines have an exhaust control device. Therefore, Sections 6.5.2 through 6.5.9 apply.

Section 6.5.2 requires procedures for establishing ranges for control equipment parameters, engine operating parameters, and engine exhaust oxygen concentrations that source testing has shown result in pollutant concentrations within the rule limits.

Section 6.5.3 requires procedures for monthly inspections as approved by the APCO. The applicable control equipment parameters and engine operating parameters will be inspected and monitored weekly (proposed by the applicant) in conformance with a regular inspection schedule listed in the I&M plan. Such weekly inspection and monitoring of the control equipment and engine operating parameters will be accompanied by quarterly emissions monitoring as specified in the approved alternate monitoring plan.

Section 6.5.4 requires procedures for the corrective actions on the noncompliant parameter(s) that the owner or operator will take when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NO<sub>x</sub>, CO, VOC, or oxygen concentrations.

Section 6.5.5 requires procedures for the owner or operator to notify the APCO when an engine is found to be operating outside the acceptable range for control equipment parameters, engine operating parameters, and engine exhaust NO<sub>x</sub>, CO, VOC, or oxygen concentrations.

The alternate monitoring scheme proposed in Section 5.8.1 above will satisfy the requirements of Sections 6.5.2, 6.5.3, 6.5.4 and 6.5.5 of the rule. Therefore, compliance with Sections 6.5.2, 6.5.3, 6.5.4, and 6.5.5 is expected.

Section 6.5.6 requires procedures for preventive and corrective maintenance performed for the purpose of maintaining an engine in proper operating condition. The alternate monitoring procedure proposed in Section 5.6.1 above will satisfy the requirements of Section 6.5.6. Moreover, the applicant will operate and maintain engine according to the manufacturer's specifications.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 5, 6, and 20 of the permit requirements ensure compliance with these sections.

Section 6.5.7 requires procedures and a schedule for using a portable NO<sub>x</sub> analyzer to take NO<sub>x</sub> emission readings pursuant to Section 5.8.9. The alternate monitoring procedure proposed in Section 5.8.1 above will ensure compliance with the requirements of Section 6.5.7.

Section 6.5.8 requires procedures for collecting and recording required data and other information in a form approved by the APCO including, but not limited to, data collected through the I&M plan and the monitoring systems described in Sections 5.8.1 and 5.8.2. Data collected through the I&M plan shall have retrieval capabilities as approved by the APCO.

The data collection and recordkeeping requirement described in Section 6.2.1 above will satisfy the requirements of Section 6.5.8.

Section 6.5.9 specifies procedures for revising the I&M plan. The owner of an engine may request a change to the I&M plan at any time. The I&M plan shall be updated to reflect any change in operation and prior to any planned change in operation. An engine owner that changes significant I&M plan elements must notify the District no later than seven days after the change and must submit an updated I&M plan to the APCO no later than 14 days after the change for approval. The date and time of the change to the I&M

plan shall be recorded in the engine operating log. For new engines and modifications to existing engines, the I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit-to-Operate.

a. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

Conditions 5, 6, 20 of the permit requirements ensure compliance with these sections.

Section 8.0 allows an operator to comply with the NO<sub>x</sub> emission requirements of Section 5.2 for a group of engines by aggregating their NO<sub>x</sub> emissions.

The facility has not requested to comply with an Alternative Emission Control Plan in lieu of the requirements of Section 5.2. Therefore, this section will not be addressed.

**K. 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

§60.4230(a)(4) through (a)(5) specify for owners which stationary spark ignition (SI) internal combustion engines (ICE) are subject to the provisions of this subpart.

Section (a)(4) applies to stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

- (i) On or after July 1, 2007 for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
- (ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
- (iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
- (iv) On or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

Section (a)(5) applies to stationary SI ICE that commence modification or reconstruction after June 12, 2006.

The engine at this facility has not commenced modification or reconstruction after June 12, 2006. Therefore, this section does not apply.

The engine does not meet any of the applicability requirements listed in §60.4230(a)(4) through (a)(5). Therefore, no requirements of 40 CFR 60 Subpart JJJJ applies to this engine.

**L. 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§63.6585(b) states, "A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site."

§63.6585(c) states, "An area source of HAP emissions is a source that is not a major source."

This facility is not a major source as defined in §63.6585(b). Therefore, this facility is an area source of HAP emissions.

§63.6590(a) states, "An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand."

§63.6590(a)(1) defines the criteria for an existing stationary RICE as follows:

- (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.
- (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

This facility is an area source of HAP emissions. Permit unit S-1114-103-5 at this facility has not commenced construction or reconstruction on or after June 12, 2006. Therefore, the engine at this facility meet the definition of an existing stationary RICE as defined in §63.6590(a)(1)(iii) and Subpart ZZZZ applies.

Permit unit S-114-103-5 is a rich burn natural gas-fired IC engine; Subpart ZZZZ management practice requirements apply to engine. Seneca Resources is not required to submit an ATC application to update permit unit '-103; the permit will be administratively updated through this Title V project. The following conditions will be placed on the permit to ensure compliance with Subpart ZZZZ:

- On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] - §63.6585/63.6595 (a)
- On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] - §63.6625(h)
- On and after October 19, 2013, the engine's oil and filter shall be changed every 4,320 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] - §63.6603/66.6640 Table 2d, Row 6.a
- On and after October 19, 2013, the engine's spark plugs shall be inspected every 4,320 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] - §63.6603/66.6640 Table 2d, Row 6.b
- On and after October 19, 2013, the engine's hoses and belts shall be inspected every 4,320 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] - §63.6603/66.6640 Table 2d, Row 6.c
- On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63, ZZZZ] - §63.6655

- On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] - §63.6655(a)(3)/§63.10(b)(2)(viii) and §63.6655(a)(4)
- On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] - §63.6655(a)(2) and (a)(5)
- {modified 3873} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] - §63.6660

#### **M. 40 CFR Part 64-CAM**

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

- 1) the unit must have an emission limit for the pollutant;
  - 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
  - 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.
- a. S-1114-10-27: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '-74.

This unit is in compliance with CAM and is expected to continue to be in compliance. Therefore the CAM determination is not required.

Conditions 48 through 54 of the permit requirements established in the Initial Title V project S-1040492 ensure continued compliance with CAM.

- b. S-1114-15-7: 12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

This unit is not equipped with an add on control device. Therefore, CAM is not triggered for this unit.

- c. S-1114-16-20: 85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

This unit may be subject to CAM for NO<sub>x</sub>, as there is a NO<sub>x</sub> limit, and the unit has an add-on control in the form of FGR. As shown below, the pre-control potential to emit is not greater than the major source threshold of 20,000 pounds NO<sub>x</sub>/year.

The control efficiency for FGR was determined using the following AP-42 emission factors from Table 1.4.1 (7/98) for small boilers < 100 MMBtu/hr.

	Emission Factor (lb/10 <sup>6</sup> scf)
Uncontrolled	100
Controlled – low NO <sub>x</sub> burner	50
Controlled Low NO <sub>x</sub> burner and Flue Gas Recirculation	32

The control efficiency of FGR is,

$$100 \times (50 \text{ lb}/10^6 \text{ scf} - 32 \text{ lb}/10^6 \text{ scf}) \div 50 \text{ lb}/10^6 \text{ scf} = 36\%$$

The emission factor for this units low NO<sub>x</sub> burner served by FGR is 7 ppmv @ 3% O<sub>2</sub> or 0.0085 lb-MMBtu/hr per permit requirements. The maximum rating for this unit is 85 MMBtu/hr.

$$\begin{aligned} \text{Emission Factor}_{\text{Precontrolled}} &= \text{Controlled EF} / (1 - \text{Control Efficiency}) \\ &= (0.0085 \text{ lb-NO}_x/\text{MMBtu}) / (1 - 0.36) \\ &= 0.013 \text{ lb-NO}_x/\text{MMBtu} \end{aligned}$$

$$\begin{aligned} \text{PE}_{\text{Precontrolled}} &= \text{Heat Rating} \times \text{Emission Factor}_{\text{Precontrolled}} \times \text{Operating Schedule} \\ &= 85 \text{ MMBtu/hr} \times 0.013 \text{ lb-NO}_x/\text{MMBtu} \times 8760 \text{ hr/yr} \\ &= 9,680 \text{ lb-NO}_x/\text{yr} \end{aligned}$$

- d. S-1114-20-15: 62.5 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

The permit requirements for this unit contain emissions limits. However this unit is not equipped with add on control device. Therefore, this unit does not trigger CAM.

- e. S-1114-28-4, -29-4, -36-4, -54-7, -58-6, -59-6, -60-6, -72-5, -78-5, -79-3, -80-3, -81-3, -82-3, -85-3, -86-3, -87-3, -101-3, -104-3, -105-3, -106-4, -109-1, -110-1, and -112-1: TANK WITH VAPOR RECOVERY SYSTEM and S-1141-66-18, and -100-4: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR CONTROL SYSTEM

The permit requirements for these units contain emissions limits. These units are equipped with vapor recovery system.

For oilfield tanks and wells, CAM is required if an emission unit is subject to emission limit or standard to the pollutant of concern, uses a control device to comply with the emission limit or standard, and has a potential pre-control emissions greater than 10 ton/year.

While most tanks and wells equipped with a vapor control system include an emission limit or standard and have uncontrolled potential to emit greater than 10 ton/year, we have concluded that the vapor control systems that they are equipped with do not meet the criteria of control device as defined in 40 CFR part 64.

The definition of control device from 40 CFR Part 64 is as follows (emphasis added):

*Control device* means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process

emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part.

It is important to note that this definition includes an exemption for "inherent process equipment. Inherent process equipment is by definition not a control device. Emission units equipped with inherent process equipment are not subject to the requirements of CAM.

40 CFR Part 64 defines inherent process equipment as (emphasis added):

*Inherent process equipment* means equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device.

Please note that the above definition requires that inherent process equipment must be used "... for the proper or safe operation of the process ...". It is important to note that the equipment need not be used solely for the proper or safe operation of the process. Such systems could be used for compliance with regulations as well.

We have concluded that vapor control systems installed on oilfield tanks and oil production wells are inherent process equipment (and by definition not a control device) for the reasons stated below.

- Tank and well vapor control systems reduce emission of H<sub>2</sub>S (a toxic substance) from the tanks/wells and as such assure worker safety for OSHA and other regulatory requirements.
- Tank vapor control systems minimize air intrusion into the vapor space and as such reduces corrosion of the tank interior. Such systems are commonly installed even though they are not required to comply with

District regulations. District Rule 4623 – Storage of Organic Liquids does not require vapor control on storage tanks storing liquids with a true vapor pressure of less than 0.5 psia. Due to the relatively low actual emissions from such tanks, vapor control is typically not a Rule 2201 best available control technology (BACT) requirement for most heavy crude oil storage tanks. Even though not required by District rules, facilities commonly install vapor control on storage tanks for safety and corrosion prevention purposes.

- As stated above, facilities commonly install vapor control on tanks even though there is not an requirement to do so. Vapor control has historically been installed on crude oil production well vents as well prior to the requirement to install such controls. In fact, the District has issued emission reduction credits for the installation of well vent vapor control systems.
- Vapors collected by tank and well vapor control systems are commonly burned in multiple existing units, e.g. steam generators, in which useful energy is recovered. Steam generators, are used in oil production to enhance oil recovery from production wells. The steam generators, wells and tanks (with their associated vapor control systems) are part of the overall process to thermally enhance oil production.

Such systems typically distribute the vapors to multiple steam generators (or other devices) for use as a fuel. The quantity of vapors from such vapor control systems combusted in a particular steam generator varies as the operational needs of the facility change. For example, vapors that are typically combusted in a given steam generator would be burned in a different approved steam generator instead if the first steam generator is taken out of service.

For all of the reasons stated above, we believe that tank and well vapor control systems are truly inherent to the oil production process. As such we believe that these systems meet the criteria for "inherent process systems", and as such are not a control device for the purposes of CAM applicability. Therefore, we do not believe that the emission units that are served by such systems are subject to the requirements of CAM.

- f. S-1114-73-6: 20 MMBTU/HR FLARE, 3 IN DIA X 12 FT TALL, SERVING PRIMARY PRODUCTION WELL VENT VAPOR CONTROL SYSTEM, TANK BATTERY '-54 VAPOR CONTROL SYSTEM, & TEOR WELL VENT VAPOR CONTROL SYSTEM '-100 (STAR LEASE)

The permit requirements for this unit contain emissions limits. However this unit is not equipped with add on control device. Therefore, this unit does not trigger CAM.

- g. S-1114-74-12: 62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

This unit is in compliance with CAM and is expected to continue to be in compliance. Therefore the CAM determination is not required.

Conditions 29 through 46 of the permit requirements ensure continued compliance with CAM.

- h. S-1114-83-8: NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

The permit requirements for this unit contain emissions limits. However this unit is not equipped with any add on control device. Therefore, this unit does not trigger CAM.

- i. S-1114-84-9: NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

The permit requirements for this unit contain emissions limits. However this unit is not equipped with add on control device. Therefore, this unit does not trigger CAM.

- j. S-1114-91-4: 4.0 MMBTU/HR LEASE GAS-FIRED BOILER - STAR SECURITY LEASE

The permit requirements for this unit do not contain any emission limits for pollutants emitted. Therefore, CAM is not triggered by this unit.

k. S-1114-103-5: 325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

This unit may be subject to CAM for NO<sub>x</sub>, CO, and VOC as there is a NO<sub>x</sub>, CO and VOC emissions limit, and the engine is equipped with an add-on control in the form of a three way catalyst. As shown below, the pre-control potential to emit is not greater than the major source threshold for NO<sub>x</sub>, CO, or VOC therefore CAM is not triggered by this unit.

Per AP-42 Table 3.2-3 (7/00) the uncontrolled emission factors for NO<sub>x</sub>, CO and VOC for a rich burn engine are 2.27 lb-NO<sub>x</sub>/MMBtu, 3.72 lb-CO/MMBtu, and 0.0296 lb-VOC/MMBtu. Pre-control emissions are calculated as follows.

$$\frac{2.27 \text{ lb} - \text{NO}_x}{\text{MMbtu}} \times \frac{2542.5 \text{ Btu}}{\text{bhp} - \text{hr}} \times \frac{1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \times \frac{8760 \text{ hr}}{\text{year}} \times 325 \text{ bhp} = 16,431 \text{ lb} - \text{NO}_x/\text{year}$$

$$\frac{3.72 \text{ lb} - \text{CO}}{\text{MMbtu}} \times \frac{2542.5 \text{ Btu}}{\text{bhp} - \text{hr}} \times \frac{1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \times \frac{8760 \text{ hr}}{\text{year}} \times 325 \text{ bhp} = 26,927 \text{ lb} - \text{CO}/\text{year}$$

$$\frac{0.0296 \text{ lb} - \text{VOC}}{\text{MMbtu}} \times \frac{2542.5 \text{ Btu}}{\text{bhp} - \text{hr}} \times \frac{1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \times \frac{8760 \text{ hr}}{\text{year}} \times 325 \text{ bhp} = 214 \text{ lb} - \text{VOC}/\text{year}$$

l. S-1114-107-3: 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

This unit is in compliance with CAM. It is expected to continue in compliance with CAM. Therefore, a CAM determination is not required.

The SO<sub>2</sub> scrubber and wet ESP are shared with unit S-1114-10. CAM requirements are found on the permit requirements of unit -10. Conditions 48 through 54 of the permit requirements for unit S-1114-10 ensure continued compliance with CAM.

m. S-1114-111-1: 85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

The permit requirements for this unit contain emissions limits. However this unit is not equipped with add on control device. Therefore, this unit does not trigger CAM.

## **IX. PERMIT SHIELD**

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

### **A. Requirements Addressed by Model General Permit Templates**

Model General Permit Template SJV-UM-0-3

By submitting Model General Permit Template SJV-UM-0-3 qualification form, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shields as granted in Model General Permit Template is included as conditions 39 and 40 of the facility-wide requirements (S-1114-0-3).

## **X. PERMIT CONDITIONS**

See Attachment A - Draft Renewed Title V Operating Permit.

## **XI. ATTACHMENTS**

- A. Draft Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Facility List
- D. District Rules 4401 and 4702 Stringency Analysis

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# ATTACHMENT A

Draft Renewed Title V Operating Permit

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# San Joaquin Valley Air Pollution Control District

FACILITY: S-1114-0-3

EXPIRATION DATE: 02/28/2011

## FACILITY-WIDE REQUIREMENTS

1. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: SENECA RESOURCES  
Location: HEAVY OIL WESTERN, CA  
S-1114-0-3: Aug 30 2011 5:07PM - GONZALEV

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

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

22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

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

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin May 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
42. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1114-9-16

**EXPIRATION DATE:** 02/28/2011  
**DRAFT**

**SECTION:** SE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

10 MMBTU/HR GAS-FIRED C.E. NATCO M&M HEATER TREATER #3: DORMANT EMISSIONS UNIT

## PERMIT UNIT REQUIREMENTS

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1. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations [District Rule 4306] Federally Enforceable Through Title V Permit
2. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
3. The fuel supply line shall be physically disconnected from this unit, or an alternate method approved by the APCO shall be instituted to ensure this unit is not operated. [District Rule 4306] Federally Enforceable Through Title V Permit
4. Unit shall be equipped with a permanently affixed mechanical stop on the positioner that shall be used to control the inlet air butterfly valve and the natural gas supply valve to limit the quantity of natural gas to 4762 scf/hr (equivalent to 5 MMBtu/hr) for each independent burner. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Maximum heat input of each burner shall be less than or equal to 5 million Btu per hour. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Each burner's products of combustion shall not come into contact with the products of combustion of any other burner. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Maximum emissions shall not exceed any of the following: PM10 - 0.005 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>) - 0.001 lb/MMBtu, NO<sub>x</sub> (as NO<sub>2</sub>) - 30 ppmv @ 3% O<sub>2</sub>, VOC - 0.003 lb/MMBtu, or CO - 113 ppmv @ 3% O<sub>2</sub>. [District Rules 2201 and 4306] Federally Enforceable Through Title V Permit
8. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. Records of fuel gas sulfur content analysis shall be kept for a period of five years and made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
9. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
10. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] 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. If compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201, and 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. The owner or operator of a boiler, steam generator, or process heater subject to the requirement of District Rule 4306 shall comply with all applicable deadlines in Table 2, Section 7.0 of the Rule. [District Rule 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: S-1114-10-27

EXPIRATION DATE: 02/28/2011

SECTION: SE15 TOWNSHIP: 31S RANGE: 22E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND O2 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '-74.

## PERMIT UNIT REQUIREMENTS

1. Steam generator is authorized to operate at the following locations: SE Section 14, T31S, R22E; SE and NE Section 15, T31S, R22E; NE Section 24, T26S, R20E; Sections 18, 19, and 20, T11N, R 23W. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
3. 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
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. 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
6. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
7. Total fuel consumption, including TEOR gas, shall not exceed 511,000 MMBtu/year. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Except as provided below, fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320] Federally Enforceable Through Title V Permit
9. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit
10. When PUC quality gas is burned, the total gas fired in this unit in any calendar month shall be less than 50% by volume PUC quality natural gas. [District Rule 4320] Federally Enforceable Through Title V Permit
11. In months where PUC quality gas is burned, the permittee shall maintain records on a calendar month basis of the volume of PUC quality natural gas and the total gas fired in this unit. Permittee shall keep monthly records of the percentage by volume of PUC quality gas fired and indicate if the volume of PUC quality gas fired is less than 50%. [District Rule 4320] 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. Permittee shall install and maintain operational non-resettable, totalizing mass or volumetric flow meter(s) in the fuel (natural gas and TEOR gas) line(s) of the unit. Permittee shall determine the higher heating value (hhv) of the fuels (natural gas and TEOR gas) on a quarterly basis once per calendar quarter and whenever there is a change in the source of the TEOR gas. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Exhaust from unit shall be directed only to SO<sub>2</sub> scrubber authorized herein except when burning PUC regulated natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Scrubber/wet ESP shall be in operation when combusting TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Emission rate of SO<sub>x</sub> from S-1114-10, and '74 shall not exceed 262,537 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic, including sodium hydroxide and sodium carbonate. Other caustics may be used upon written District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR part 64] Federally Enforceable Through Title V Permit
19. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
20. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Scrubber/wet ESP control efficiency shall not be less than 95% by weight sulfur compounds. [District Rule 2201] Federally Enforceable Through Title V Permit
22. When any unit connected to scrubber is burning TEOR gas, scrubber shall be operating and permittee shall demonstrate compliance with PM<sub>10</sub> and sulfur oxide emissions limit by stack source testing within 60 days of initial scrubbing date and annually thereafter unless no TEOR gas has been burned since the last scrubber performance source test. Sulfur removal efficiency of scrubber shall be demonstrated during initial stack source test and calculated with subsequent tests. Ongoing compliance with sulfur oxide emissions limit shall be by calculation using the scrubber liquid pH, the demonstrated sulfur removal efficiency, and the fuel gas sulfur content. Fuel gas sulfur content shall be obtained by sample analysis at least quarterly. [District NSR Rule] Federally Enforceable Through Title V Permit
23. When unit is operated without scrubber/wet ESP, permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content within 60 days of initiating operation without scrubber. Analyses, as approved by the APCO, provided by the gas supplier may be used to satisfy this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
24. When complying with PM<sub>10</sub> and SO<sub>x</sub> emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Methods 5 or 201A, 6, 6B, 8, or ARB 100. When operating unscrubbed, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 may be used to calculate SO<sub>x</sub> emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every 36 months unless testing is required by scrubber operational mode change as noted above. Annual source testing shall resume if any test fails to show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit
25. At no time shall amount of TEOR gas introduced to this unit and all units connected to scrubber/wet ESP exceed the amount introduced during a source test demonstrating compliance with permit limits. [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.

26. Emissions rates shall not exceed any of the following: NOx (as NO2): 12 ppmv @ 3% O2, SOx (as SO2) 0.324 lb/MMBtu, PM10: 0.0713 lb/MMBtu, CO: 42 ppmv @ 3% O2, or VOC: 0.003 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with PM10, SOx, NOx, and CO emission limits shall be conducted annually, except as provided below. [District Rules 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
28. Source testing to demonstrate compliance with PM10, SOx, NOx, and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
29. If permittee fails any compliance demonstration for NOx and/or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
30. Compliance source testing shall be conducted under conditions representative of normal operation. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
32. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
36. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
37. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

38. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
39. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
40. Permittee shall maintain records of fuel gas and TEOR gas sulfur content, higher heating value, annual consumption in MMBtu/year. [District NSR Rule] Federally Enforceable Through Title V Permit
41. Permittee shall comply with all notification and recordkeeping requirements of 40 CFR 60.7 a (1)(3) and (b). [District Rule 4001] Federally Enforceable Through Title V Permit
42. Fuel gas sulfur content shall be determined using ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
43. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
44. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
45. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, 4305, 4306, and 4320. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
47. When the scrubber is operating, the scrubber liquor pH shall be recorded every 15 minutes. [40 CFR part 64] Federally Enforceable Through Title V Permit
48. An excursion from the scrubber liquor pH level is defined as a daily pH reading of less than 6 or greater than 8. Upon detecting any excursion from the acceptable pH level, the permittee shall investigate the excursion and take corrective action to restore required pH level and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR part 64] Federally Enforceable Through Title V Permit
49. Records of scrubber pH monitoring equipment downtime, scrubber pH level excursions, and scrubber operation shall be maintained. [40 CFR part 64] Federally Enforceable Through Title V Permit
50. The scrubber pH sensor shall be calibrated annually. Calibration of the pH sensor shall be conducted by comparison of the sensor reading with a laboratory measurement of the scrubber recirculation fluid. [40 CFR part 64] Federally Enforceable Through Title V Permit
51. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] 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.

52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
53. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit
54. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
55. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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: S-1114-15-17

EXPIRATION DATE: 02/28/2011

SECTION: SE15 TOWNSHIP: 31S RANGE: 22E

## EQUIPMENT DESCRIPTION:

12.6 MMBTU/HR NATURAL GAS-FIRED TRICO HEATER TREATER V-3, SA# 285-0 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODELS ACTO5GSLE 7.6 MMBTU/HR AND ACTO4GSLE 5.0 MMBTU/HR LOW NOX BURNERS

## PERMIT UNIT REQUIREMENTS

1. Only PUC regulated natural gas shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Maximum emission rate(s) shall not exceed any of the following: PM10 - 0.005 lb/MMBtu, SOx (as SO2) - 0.001 lb/MMBtu, NOx (as NO2) - 15 ppmv @ 3% O2; VOC - 0.003 lb/MMBtu, as methane; or CO - 113 ppmv @ 3% O2. [District NSR Rule, 4305 and 4306] Federally Enforceable Through Title V Permit
3. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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

7. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
11. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
12. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
17. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
19. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. [District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
20. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [Kern County Rule 407] Federally Enforceable Through Title V Permit
21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, and 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] 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:** S-1114-16-20

**EXPIRATION DATE:** 02/28/2011

**SECTION:** SE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR STRUTHERS NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN LOW NOX BURNER AND FGR AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

## PERMIT UNIT REQUIREMENTS

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1. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0085 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 42 ppmvd CO @ 3% O<sub>2</sub> or 0.031 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
2. This steam generator is approved for operation at the following locations: SE/4 Section 14 and SE/4 Section 15, Township 31 South, Range 22 East, and NE/4 Section 24, Township 26 South, Range 20 East, MDB&M. [District NSR Rule and CH&SC 41700] Federally Enforceable Through Title V Permit
3. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This steam generator and Unit S-1114-111-0 shall not be operated at the same permitted location at the same time. [District Rule 2201 and CH&SC 41700] Federally Enforceable Through Title V Permit
5. Flue gas recirculation system shall be operated whenever generator is operated. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] 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.

8. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
13. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. Records of fuel gas sulfur content analysis shall be kept for a period of five years and made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
17. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
19. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] 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.

20. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, and 4305. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5; 4306, 5.5.5; and 4320] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1; 4306, 6.1; and 4320] Federally Enforceable Through Title V Permit

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:** S-1114-18-16

**EXPIRATION DATE:** 02/28/2011

**SECTION:** SE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

10 MMBTU/HR NATURAL GAS-FIRED H.T.I. M&M HEATER TREATER #3: DORMANT EMISSIONS UNIT

## PERMIT UNIT REQUIREMENTS

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1. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations [District Rule 4306] Federally Enforceable Through Title V Permit
2. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
3. The fuel supply line shall be physically disconnected from this unit, or an alternate method approved by the APCO shall be instituted to ensure this unit is not operated. [District Rule 4306] Federally Enforceable Through Title V Permit
4. A permanently affixed mechanical stop on the positioner shall control the inlet air butterfly valve and the natural gas supply valve such that the natural gas supply is limited to 4762 scf/hr (equivalent to 5 MMBtu/hr) for each independent burner. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Maximum heat input of each burner shall be less than or equal to 5 million Btu per hour. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Each burner's products of combustion shall not come into contact with the products of combustion of any other burner. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Maximum emissions shall not exceed any of the following: PM10 - 0.005 lb/MMBtu, SOx (as SO2) - 0.001 lb/MMBtu, NOx (as NO2) - 30 ppmv @ 3% O2, VOC - 0.003 lb/MMBtu or CO - 113 ppmv @ 3% O2. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. Records of fuel gas sulfur content analysis shall be kept for a period of five years and made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
9. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
10. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] 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. If compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
14. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201, and 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. The owner or operator of a boiler, steam generator, or process heater subject to the requirement of District Rule 4306 shall comply with all applicable deadlines in Table 2, Section 7.0 of the Rule. [District Rule 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:** S-1114-19-18

**EXPIRATION DATE:** 02/28/2011

**SECTION:** SE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

10 MMBTU/HR NATURAL GAS-FIRED H.T.I. HEATER TREATER #4, SA# 0392: DORMANT EMISSIONS UNIT

## PERMIT UNIT REQUIREMENTS

1. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations [District Rule 4306]
2. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
3. The fuel supply line shall be physically disconnected from this unit, or an alternate method approved by the APCO shall be instituted to ensure this unit is not operated. [District Rule 4306]
4. This heater treater shall only operate at the following specified locations: NE and SE Section 15, Township 31S, Range 22E; NE Section 24, Township 26S Range 20E. [District NSR Rule and 4102] Federally Enforceable Through Title V Permit
5. A permanently affixed mechanical stop on the positioner shall control the inlet air butterfly valve and the natural gas supply valve such that the natural gas supply is limited to 4762 scf/hr (equivalent to 5 MMBtu/hr) for each independent burner. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Maximum heat input of each burner shall be less than or equal to 5 million Btu per hour. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Each burner's products of combustion shall not come into contact with the products of combustion of any other burner. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Maximum emissions shall not exceed any of the following: PM10 - 0.005 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>) - 0.001 lb/MMBtu (6 ppmv H<sub>2</sub>S), NO<sub>x</sub> (as NO<sub>2</sub>) - 0.095 lb/MMBtu (78 ppmv), VOC - 0.003 lb/MMBtu (7 ppmv), or CO - 113 ppmv @ 3%. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. Records of fuel gas sulfur content analysis shall be kept for a period of five years and made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
10. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
11. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] 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. If compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201, and 4301. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] 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:** S-1114-20-15

**EXPIRATION DATE:** 02/28/2011

**SECTION:** SE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR STRUTHERS NATURAL/TEOR GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE BURNER, MULTIPLE LOCATIONS - M & M GENERATOR #5

## PERMIT UNIT REQUIREMENTS

1. Steam generator is authorized to operate at the following locations: SE Section 14, T31S, R22E; SE and NE Section 15, T31S, R22E; NE Section 24, T26S, R20E; Sections 18, 19, and 20, T11N, R 23W. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
3. 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
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. 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
6. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
7. Approved locations for this steam generator are: NE/4 and SE/4 Section 15, Township 31 South, Range 22 East, and NE/4 Section 24, Township 26 South, Range 20 East, MDB&M. [District NSR Rule and CH&SC 41700] Federally Enforceable Through Title V Permit
8. Except as provided below, fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320] Federally Enforceable Through Title V Permit
9. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit
10. When PUC quality gas is burned, the total gas fired in this unit in any calendar month shall be less than 50% by volume PUC quality natural gas. [District Rule 4320] Federally Enforceable Through Title V Permit
11. In months where PUC quality gas is burned, the permittee shall maintain records on a calendar month basis of the volume of PUC quality natural gas and the total gas fired in this unit. Permittee shall keep monthly records of the percentage by volume of PUC quality gas fired and indicate if the volume of PUC quality gas fired is less than 50%. [District Rule 4320] 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. Permittee shall install and maintain operational non-resettable, totalizing mass or volumetric flow meter(s) in the fuel (natural gas and TEOR gas) line(s) of the unit. Permittee shall determine the higher heating value (hhv) of the fuels (natural gas and TEOR gas) on a quarterly basis once per calendar quarter and whenever there is a change in the source of the TEOR gas. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 12 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.014 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.005 lb-PM<sub>10</sub>/MMBtu, 50 ppmv CO @ 3% O<sub>2</sub> or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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

22. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
25. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
28. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
29. If compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
30. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
31. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
32. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, 4305, 4306, and 4320. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
34. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] 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: S-1114-28-4

SECTION: 15 TOWNSHIP: 31S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR RECOVERY SYSTEM

EXPIRATION DATE: 02/28/2011  
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## PERMIT UNIT REQUIREMENTS

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1. The tank shall be fully enclosed and shall be maintained in a leak-free condition. The vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. The VOC control device shall reduce the inlet VOC emissions by at least 95 percent by weight. [District Rule 4623, 5.6.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
3. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
5. The control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit
6. {2604} 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 upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. {2605} 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. Leaks over 10,000 ppmv shall be reported as a deviation. [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.

8. {2606} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times.  
[District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements.  
[District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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: S-1114-29-4

EXPIRATION DATE: 02/28/2011

SECTION: 15 TOWNSHIP: 31S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

10,500 GALLON FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR RECOVERY SYSTEM

## PERMIT UNIT REQUIREMENTS

1. The tank shall be fully enclosed and shall be maintained in a leak-free condition. The vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. The VOC control device shall reduce the inlet VOC emissions by at least 95 percent by weight. [District Rule 4623, 5.6.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
3. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
5. The control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit
6. {2604} 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 upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. {2605} 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. Leaks over 10,000 ppmv shall be reported as a deviation. [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.

8. {2606} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times.  
[District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements.  
[District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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: S-1114-36-4

EXPIRATION DATE: 02/28/2011

SECTION: 14 TOWNSHIP: 31S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

7,560 GALLON FIXED ROOF PETROLEUM STORAGE TANK WITH VAPOR RECOVERY SYSTEM

## PERMIT UNIT REQUIREMENTS

1. The tank shall be fully enclosed and shall be maintained in a leak-free condition. The vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. The VOC control device shall reduce the inlet VOC emissions by at least 95 percent by weight. [District Rule 4623, 5.6.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
3. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
4. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
5. The control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit
6. {2604} 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 upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. {2605} 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. Leaks over 10,000 ppmv shall be reported as a deviation. [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.

8. {2606} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times.  
[District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements.  
[District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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:** S-1114-54-7

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

500 BBL WASH TANK #10754 WITH VAPOR RECOVERY PIPING SHARED WITH PERMITS S-1114-58, -59, -60, -72, -101, -109, -110 AND 112 (SECURITY LEASE)

## PERMIT UNIT REQUIREMENTS

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1. This tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall be maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
3. Tank seams, welds, joints, piping, valves and fittings shall be inspected and maintained leak-free. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The vapor recovery system shall be maintained in a leak-free condition. [District Rule 4623, 5.6.1] Federally Enforceable Through Title V Permit
5. {2606} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
7. VOC emissions from fugitive emissions sources in this permit unit shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total organic compound content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using U.S. EPA document "EPA Protocol for Equipment Leak Emission Estimate," Table 2-4, "Oil and Gas Production Operations," using average emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The vapor control device shall reduce the inlet VOC emissions by at least 99% by weight. [District Rules 2201 and 4623, 5.6.1] Federally Enforceable Through Title V Permit
11. The control efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit
12. Vapor control system compressor shall activate before tanks' internal pressure exceeds any pressure relief valve setting. [District Rule 2201] 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.

13. Vapor space pressure in tanks shall be controlled by a gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
14. PUC-quality, PUC-regulated, inert gas, produced gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Blanket gas pressure control valves shall be set to minimize tanks in-breathing and prevent tanks pressure relief valves from opening. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Collected vapors shall be discharged only to sales gas compressor listed on S-1114-103, flare S-1114-73 or boiler S-1114-91. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
18. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Operator shall monitor vapor recovery compressor activation and shut off manometer pressures on quarterly basis to ensure that compressor activation pressure does not exceed any tank's pressure relief valve setting. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
21. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
22. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
23. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
24. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
25. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
26. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] 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.

27. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]
28. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
29. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
30. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] 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:** S-1114-58-6

**EXPIRATION DATE:** 02/28/2011  
**DRAFT**

**SECTION:** 24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

21,000 GALLON FIXED ROOF SHIPPING TANK #10814 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM ON PERMIT S-1114-54

## PERMIT UNIT REQUIREMENTS

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1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
3. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total hydrocarbon content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] 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. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit
17. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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:** S-1114-59-6

**EXPIRATION DATE:** 02/28/2011

**SECTION:** 24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

21,000 GALLON FIXED ROOF WASH TANK #10815 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM ON PERMIT S-1114-54

## PERMIT UNIT REQUIREMENTS

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1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
3. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total hydrocarbon content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] 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. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit
17. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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: S-1114-60-6

SECTION: 24 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

42,000 GALLON FIXED ROOF SHIPPING TANK # 10824 WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM ON PERMIT S-1114-54

EXPIRATION DATE: 02/28/2011  
**DRAFT**

## PERMIT UNIT REQUIREMENTS

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1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
3. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total hydrocarbon content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] 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. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit
17. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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:** S-1114-66-18

**EXPIRATION DATE:** 02/28/2011  
**DRAFT**

**SECTION:** SE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 711 STEAM-ENHANCED CRUDE OIL PRODUCTION WELLS

## PERMIT UNIT REQUIREMENTS

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1. The total number of steam drive wells included in this unit may be up to 85 wells. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Permittee shall maintain with the permit a current listing of all wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 1081] Federally Enforceable Through Title V Permit
3. Non-condensable vapors shall either be incinerated in scrubbed steam generator S-1114-10, '-74 and/or S-1114-107 or shall be disposed of in a well approved by the Division of Oil Gas and Geothermal Resources (D.O.G.G.E.R) for the disposal of well vent vapor recovery system gases. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Volatile Organic Compound (VOC) emission rate shall not exceed 247.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Collected liquids shall be handled, stored, and disposed of in a manner preventing air contaminant emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When steam generator is used for waste gas disposal permittee shall maintain daily records of waste gas volume and quarterly records of waste gas sulfur content [District Rule 1081] Federally Enforceable Through Title V Permit
7. Components associated with the steam enhanced crude oil production wells and the vapor recovery systems shall be inspected on a quarterly basis, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. [District Rules 2201, 2520, 9.3.2 and 4401, 6.3.3] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit shall be deemed in compliance with District Rule 1081 (Amended December 16, 1993). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
9. The well vent vapor control system listed on this permit may receive vapors from other Chevron USA Inc's TEOR system listed on PTO S-1141-250. [District Rule 2201] Federally Enforceable Through Title V Permit
10. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 3.20] 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. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
12. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere., a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.2] Federally Enforceable Through Title V Permit
13. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401 5.2.2] Federally Enforceable Through Title V Permit
14. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401 5.3.1] Federally Enforceable Through Title V Permit
15. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.3.2] Federally Enforceable Through Title V Permit
16. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.3.3] Federally Enforceable Through Title V Permit
17. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401 5.4.1] Federally Enforceable Through Title V Permit
18. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401 5.4.2] Federally Enforceable Through Title V Permit
19. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401 5.4.3] 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.

20. In addition to the inspections required by Sections 5.4.1, Section 5.4.2 and Section 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.4.4] Federally Enforceable Through Title V Permit
21. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.4.7] Federally Enforceable Through Title V Permit
22. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401 5.4.8] Federally Enforceable Through Title V Permit
23. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401 5.5.1] Federally Enforceable Through Title V Permit
24. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.5.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit
25. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.5.3] Federally Enforceable Through Title V Permit
26. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.5.4] Federally Enforceable Through Title V Permit
27. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.5.4] Federally Enforceable Through Title V Permit
28. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401 5.5.5] Federally Enforceable Through Title V Permit
29. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401 5.5.6] Federally Enforceable Through Title V Permit
30. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.5.7] Federally Enforceable Through Title V Permit
31. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] 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.

32. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit
33. Operator shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit
34. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit
35. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit
36. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit
37. Operator shall submit a list of all gauge tanks, as defined in Section 3.0. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit
38. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit
39. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit
40. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit
41. If approved by the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit
42. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit
43. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401 6.3.1] Federally Enforceable Through Title V Permit

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

44. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401 6.3.2] Federally Enforceable Through Title V Permit
45. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3.3] Federally Enforceable Through Title V Permit
46. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401 6.3.4] Federally Enforceable Through Title V Permit
47. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit
48. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
49. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.6 shall be submitted with the OMP. A detailed schedule of an operator's inspections of components to be conducted by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
50. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] 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.

51. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4401, 6.1] 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: S-1114-72-5

EXPIRATION DATE: 02/28/2011  
**DRAFT**

SECTION: NE24 TOWNSHIP: 26 RANGE: 20

## EQUIPMENT DESCRIPTION:

1,000 BARREL FIXED-ROOF CRUDE OIL STORAGE TANK VENTING TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-54

## PERMIT UNIT REQUIREMENTS

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1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
3. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total hydrocarbon content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] 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. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit
17. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2]. Federally Enforceable Through Title V Permit

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:** S-1114-73-6

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

20 MMBTU/HR FLARE, 3 IN DIA X 12 FT TALL, SERVING PRIMARY PRODUCTION WELL VENT VAPOR CONTROL SYSTEM, TANK BATTERY '-54 VAPOR CONTROL SYSTEM, & TEOR WELL VENT VAPOR CONTROL SYSTEM '-100 (STAR LEASE)

## PERMIT UNIT REQUIREMENTS

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1. Amount of gas flared shall not exceed 155,000 MMBtu (based on higher heating value of flared gas) in any one year. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Emission rates shall not exceed the following: PM10: 0.0202 lb/MMBtu, NOx (as NO2): 0.068 lb/MMBtu, VOC: 0.0210 lb/MMBtu, and CO: 0.37 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas inlet to flare shall be equipped with recording flow rate meter. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Sulfur content of gases burned in flare shall not exceed 303.7 gr/100 Scf as total sulfur. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Gas sulfur content and higher heating value shall be measured quarterly using gas chromatographic analysis to calculate SOx emission rate. Test reports of measured fuel sulfur content and higher heating value shall be maintained. The calculated SOx emission rate shall be recorded in format approved by the District. If compliance with the SOx emission rate has been demonstrated for 8 consecutive quarters for a fuel source, then the testing frequency shall be annually. If an annual fuel sulfur content and higher heating value testing fails to show compliance, quarterly testing shall resume [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The permittee shall keep accurate daily records of volume of gas flared for a period of five years, and shall make such records available for District inspection upon request. [District Rule 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Flares shall be designed for and operated with no visible emissions except for periods not to exceed a total of three (3) minutes in any one (1) hour. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
8. The flare shall be inspected quarterly during operation for visible emissions, using EPA Method 22. If visible emissions are observed, corrective action shall be taken. If visible emissions cannot be eliminated, an EPA Method 9 test shall be conducted within 24 hours. [2520, 9.3.2] Federally Enforceable Through Title V Permit
9. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
10. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] 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. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
12. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
13. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [2520, 9.3.2] Federally Enforceable Through Title V Permit
14. Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit
15. All records, including required monitoring data and support information, shall be maintained and retained for a period of 5 years and made available for inspection at any time. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit
16. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to District Rule 4311, Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by District Rule 4311, Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit
17. The permittee shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
18. Upon request, the operator of flares that are subject to Section 5.6 shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5.) [District Rule 4311] 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:** S-1114-74-12

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL /TEOR GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER AND SO2 SCRUBBER AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH UNIT S-1114-10

## PERMIT UNIT REQUIREMENTS

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1. {1407} 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]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. {15} 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]
4. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Steam generator is authorized to operate at the following locations: SE Section 14, T31S, R22E; SE and NE Section 15, T31S, R22E; NE Section 24, T26S, R20E; Sections 18, 19, and 20, T11N, R 23W. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070 and Kern County Rule 107] Federally Enforceable Through Title V Permit
7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
8. When operating at NE15, T31S/R22E, scrubber shall be used when burning TEOR gas. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Except as provided below, fuel burned in this unit shall not be PUC quality natural gas. PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320] Federally Enforceable Through Title V Permit
10. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit
11. When PUC quality gas is burned, the total gas fired in this unit in any calendar month shall be less than 50% by volume PUC quality natural gas. [District Rule 4320] 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. In months where PUC quality gas is burned, the permittee shall maintain records on a calendar month basis of the volume of PUC quality natural gas and the total gas fired in this unit. Permittee shall keep monthly records of the percentage by volume of PUC quality gas fired and indicate if the volume of PUC quality gas fired is less than 50%. [District Rule 4320] Federally Enforceable Through Title V Permit
13. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Emission rates of SO<sub>x</sub> for units S-1114-10 and '-74 shall not exceed 262,537 lb/yr. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Emission rate of NO<sub>x</sub> (as NO<sub>2</sub>) shall not exceed 12 ppmv @ 3% O<sub>2</sub>. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
16. Emission rates shall not exceed PM<sub>10</sub>: 0.0713 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 0.324 lb/MMBtu, VOC: 0.003 lb/MMBtu, and CO: 29 ppmv at 3% O<sub>2</sub>. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. At no time shall TEOR gas introduced to this unit and all units connected to scrubber exceed the amount introduced during a source test demonstrating compliance with permit limits. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted not less than once every 12 months thereafter, except as provided below. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. If permittee fails any compliance demonstration for NO<sub>x</sub> and/or CO emission limits when testing not less than once every 36 months, compliance with NO<sub>x</sub> and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. Compliance source testing shall be conducted under conditions representative of normal operation. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NO<sub>x</sub> and CO source testing requirement. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
26. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, sulfur oxides - ARB Methods 1-6, and fuel gas sulfur content - ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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28. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
31. Permittee shall maintain records of fuel gas and TEOR gas sulfur contents and annual consumption of each. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be inspected monthly for detectable leaks. Operator shall repair each leak within 15 calendar days of detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. Records of steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork monthly inspections shall be maintained. Inspection log shall contain at a minimum the following: 1) date of inspection; 2) name of inspector; 3) identification and location of leak; and 4) date when leak has been repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. Fuel gas sulfur content shall be determined using ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. [District Rule 4301] Federally Enforceable Through Title V Permit
36. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. [Kern County Rule 407] Federally Enforceable Through Title V Permit
37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, 4305, 4306, and 4320. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
39. When the scrubber is operating, scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [40 CFR part 64] Federally Enforceable Through Title V Permit
40. When the scrubber is operating, the scrubber liquor pH shall be recorded every 15 minutes. [40 CFR part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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41. An excursion from the scrubber liquor pH level is defined as a daily pH reading of less than 6 or greater than 8. Upon detecting any excursion from the acceptable pH level, the permittee shall investigate the excursion and take corrective action to restore required pH level and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR part 64] Federally Enforceable Through Title V Permit
42. Records of scrubber pH monitoring equipment downtime, scrubber pH level excursions, and scrubber operation shall be maintained. [40 CFR part 64] Federally Enforceable Through Title V Permit
43. The scrubber pH sensor shall be calibrated annually. Calibration of the pH sensor shall be conducted by comparison of the sensor reading with a laboratory measurement of the scrubber recirculation fluid. [40 CFR part 64] Federally Enforceable Through Title V Permit
44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
46. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit
47. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
48. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
49. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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:** S-1114-78-5

**EXPIRATION DATE:** 02/28/2011

**SECTION:** 15 **TOWNSHIP:** 31S **RANGE:** 22E

## **EQUIPMENT DESCRIPTION:**

5,000 BBL FIXED ROOF FREE WATER KNOCKOUT TANK T-1 W/VAPOR CONTROL SYSTEM INCLUDING HEAT EXCHANGER, LIQUID KNOCKOUT VESSELS, & VAPOR COMPRESSOR WITH PIPING TO STEAM GENERATOR S-1114-74, HEATER TREATERS S-1114-83 & 84, AND SERVING TANKS S-1114-78,79,80,81,82,85,86,87,104,105 AND 106 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## **PERMIT UNIT REQUIREMENTS**

1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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:** S-1114-79-3

**EXPIRATION DATE:** 02/28/2011

**SECTION:** 15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

2,000 BBL LACT TANK #T-2 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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:** S-1114-80-3

**EXPIRATION DATE:** 02/28/2011  
**DRAFT**

**SECTION:** 15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

2,000 BBL REJECT TANK #T-3 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

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1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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: S-1114-81-3

EXPIRATION DATE: 02/28/2011

SECTION: 15 TOWNSHIP: 31S RANGE: 22E

## EQUIPMENT DESCRIPTION:

1,000 BBL SLOP TANK #T-4 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1114-82-3

SECTION: 15 TOWNSHIP: 31S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

3,000 BBL WASTEWATER TANK #T-5 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

EXPIRATION DATE: 02/28/2011  
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## PERMIT UNIT REQUIREMENTS

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1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

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10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1114-83-8

**EXPIRATION DATE:** 02/28/2011  
**DRAFT**

**SECTION:** NE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

NATURAL GAS FIRED HEATER TREATER V-1 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

## PERMIT UNIT REQUIREMENTS

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1. Only natural gas with a maximum sulfur content of 0.2 grain/100 scf shall be used as fuel or make up gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Maximum emission rate(s) shall not exceed any of the following: PM10 - 0.005 lb/MMBtu, NOx (as NO2) - 15 ppmv @ 3% O2; VOC - 0.003 lb/MMBtu or 7.1 ppmv @ 3% O2, as methane; or CO - 250 ppmv @ 3% O2. [District Rules 2201 and 4306] Federally Enforceable Through Title V Permit
3. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

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

8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted every twelve (12) months. After demonstrating compliance on two (2) consecutive source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
11. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
12. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
17. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
18. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
19. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. If compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 4305, 6.2.1] 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. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of fuel gas sulfur content analysis and annual fuel use. [District Rule 2201] Federally Enforceable Through Title V Permit
24. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, and 4305. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] 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: S-1114-84-9

EXPIRATION DATE: 02/28/2011  
**DRAFT**

SECTION: NE15 TOWNSHIP: 31S RANGE: 22E

## EQUIPMENT DESCRIPTION:

NATURAL GAS FIRED HEATER TREATER V-2 WITH AMERICAN COMBUSTION TECHNOLOGIES, INC. MODEL SLE05 7.3 MMBTU/HR AND 5.0 MMBTU/HR LOW NOX BURNER WITH VAPOR RECOVERY PIPING TO S-1114-78

## PERMIT UNIT REQUIREMENTS

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1. Only natural gas with a maximum sulfur content of 0.2 grain/100 scf shall be used as fuel or make up gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Maximum emission rate(s) shall not exceed any of the following: PM10 - 0.005 lb/MMBtu, NOx (as NO2) - 15 ppmv @ 3% O2; VOC - 0.003 lb/MMBtu or 7.1 ppmv @ 3% O2, as methane; or CO - 250 ppmv @ 3% O2. [District Rules 2201 and 4306] Federally Enforceable Through Title V Permit
3. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

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

8. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted every twelve (12) months. After demonstrating compliance on two (2) consecutive source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
11. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
12. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
13. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
14. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
17. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
18. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
19. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. If compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 4305, 6.2.1] 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. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of fuel gas sulfur content analysis and annual fuel use. [District Rule 2201] Federally Enforceable Through Title V Permit
24. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
25. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, and 4305. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
26. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] 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:** S-1114-85-3

**EXPIRATION DATE:** 02/28/2011

**SECTION:** 15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

WEMCO AIR FLOTATION UNIT #W-1 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

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1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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:** S-1114-86-3

**EXPIRATION DATE:** 02/28/2011  
**DRAFT**

**SECTION:** NE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

1,000 BBL SUMP REPLACEMENT TANK #T-9 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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:** S-1114-87-3

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

1,000 BBL SUMP REPLACEMENT TANK #T-10 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

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1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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: S-1114-91-4

SECTION: NE24 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

4.0 MMBTU/HR LEASE GAS-FIRED BOILER - STAR SECURITY LEASE

EXPIRATION DATE: 02/28/2011  
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## PERMIT UNIT REQUIREMENTS

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1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. The permittee shall tune the unit at least twice per calendar year, (from four to eight months apart) using a qualified technician in accordance with the procedure described in Rule 4304. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for a calendar year. No tune-up is required if the unit is not operated during that calendar year. The unit may be test fired to verify availability of the unit for its intended use, but once the test firing is complete the unit shall be shutdown. [District Rule 4307] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of: (1) the date that tune-ups are performed, (2) a description of any corrective action taken to maintain the emissions within the acceptable range, and (3) a record of the operational characteristics monitored. [District Rule 4307] Federally Enforceable Through Title V Permit
7. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
8. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D1072, D3031, D4084, D3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D3588 for gaseous fuels. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rule 4201, 4301 and Kern County Rules 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. {520} The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

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:** S-1114-100-4

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE24 **TOWNSHIP:** 26S **RANGE:** 20E

## **EQUIPMENT DESCRIPTION:**

20 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS, AND THERMALLY ENHANCED OIL RECOVERY OPERATION AND WELL-VENT VAPOR CONTROL SYSTEM INCLUDING SEPARATORS, COLLECTORS, COOLERS, AND COMPRESSORS

## **PERMIT UNIT REQUIREMENTS**

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1. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District NSR Rule and 4401] Federally Enforceable Through Title V Permit
2. VOC content of well vent vapor gas shall not exceed 10% by weight. If the VOC content of the well vent vapor gas is less than 10% by weight for 8 consecutive quarterly samplings per District approved plan, sampling frequency shall only be required annually. Permittee shall conduct quarterly gas sampling immediately downstream of the initial compressor. If gas samples are 10% VOC by weight or less for 8 consecutive quarterly samplings, sampling shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Collected vapors shall be sent to the sales gas line, incinerated in flare S-1114-73, or injected into the formation. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Injection of collected vapors shall only be performed using Department of Oil, Gas & Geothermal (DOGGR) approved injection wells. Permittee shall make copies of DOGGR approval for injection wells and make such documentation readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall cease injecting vapors and notify the District immediately if DOGGR injection approval is revoked, denied, terminated, surrendered or altered to disallow injection. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall inspect all components on a quarterly basis for leaks, using the inspection procedures contained in Rule 4401. Any component found to be leaking shall be reinspected within 30 days after it is repaired. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit a listing (updated annually within 60 days of permit anniversary) of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Permittee shall maintain records of the results of each leak inspection, including the date of the inspection, identification of leaking components, and documentation of the repair of the components. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

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

11. Compliance with permit conditions in the Title V permit shall be deemed in compliance with District Rule 1081 (as amended December 16, 1993). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. For pressure relief devices (PRDs) a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 400 to 10,000 ppmv. For components other than PRDs a major gas leak is greater than 10,000 ppmv and a minor gas leak is from 2,000 to 10,000 ppmv. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute. Any liquid or gas coming from a component undergoing repair or replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 3.20] Federally Enforceable Through Title V Permit
13. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
14. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere., a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401 5.2] Federally Enforceable Through Title V Permit
15. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401 5.2.2] Federally Enforceable Through Title V Permit
16. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401 5.3.1] Federally Enforceable Through Title V Permit
17. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401 5.3.2] Federally Enforceable Through Title V Permit
18. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401 5.3.3] Federally Enforceable Through Title V Permit
19. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401 5.4.1] 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.

20. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401 5.4.2] Federally Enforceable Through Title V Permit
21. In addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401 5.4.3] Federally Enforceable Through Title V Permit
22. In addition to the inspections required by Sections 5.4.1, Section 5.4.2 and Section 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401 5.4.4] Federally Enforceable Through Title V Permit
23. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401 5.4.7] Federally Enforceable Through Title V Permit
24. District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401 5.4.8] Federally Enforceable Through Title V Permit
25. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401 5.5.1] Federally Enforceable Through Title V Permit
26. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.5.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit
27. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401 5.5.3] Federally Enforceable Through Title V Permit
28. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401 5.5.4] Federally Enforceable Through Title V Permit
29. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401 5.5.4] Federally Enforceable Through Title V Permit
30. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401 5.5.5] 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.

31. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401 5.5.6] Federally Enforceable Through Title V Permit
32. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401 5.5.7] Federally Enforceable Through Title V Permit
33. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401 6.1.1] Federally Enforceable Through Title V Permit
34. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401 6.1.3] Federally Enforceable Through Title V Permit
35. Operator shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401 6.1.4] Federally Enforceable Through Title V Permit
36. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401 6.1.5] Federally Enforceable Through Title V Permit
37. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401 6.1.6] Federally Enforceable Through Title V Permit
38. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401 6.1.7] Federally Enforceable Through Title V Permit
39. Operator shall submit a list of all gauge tanks, as defined in Section 3.0. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401 6.1.8] Federally Enforceable Through Title V Permit
40. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401 6.1.9] Federally Enforceable Through Title V Permit
41. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401 6.1.10] Federally Enforceable Through Title V Permit
42. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401 6.2.1] Federally Enforceable Through Title V Permit
43. If approved by the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401 6.2.2] Federally Enforceable Through Title V Permit

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

44. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.0 of Rule 4401: an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.9 of Rule 4401. [District Rule 4401 6.2.3] Federally Enforceable Through Title V Permit
45. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401 6.3.1] Federally Enforceable Through Title V Permit
46. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401 6.3.2] Federally Enforceable Through Title V Permit
47. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401 6.3.3] Federally Enforceable Through Title V Permit
48. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401 6.3.4] Federally Enforceable Through Title V Permit
49. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401 6.4] Federally Enforceable Through Title V Permit
50. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] 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.

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51. The operator shall maintain an APCO approved Operator Management Plan (OMP). The OMP shall include, at a minimum, a description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt; an identification and description of any known hazard that might affect the safety of an inspector; except for pipes, the number of components that are subject to this rule by component type; except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation; except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description); except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the OMP by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.6 shall be submitted with the OMP. A detailed schedule of an operator's inspections of components to be conducted by a qualified contractor or by an in-house team; a description of the training standards for personnel that inspect and repair components; and a description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
52. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit
53. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4401, 6.1] 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:** S-1114-101-3

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE 24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

3,300 BARREL LACT TANK WITH VAPOR PIPING TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-54

## PERMIT UNIT REQUIREMENTS

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1. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Vapor control efficiency shall be maintained at no less than 99%. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Tank gauging, sampling devices, relief valves, manholes, vapor recovery system components, etc. shall be leak free (as defined in Rule 4623) and shall remain closed at all times except during gauging or sampling. [District NSR Rule and 4623] Federally Enforceable Through Title V Permit
4. Tank seams, welds, joints, piping, valves and fittings shall be inspected and maintained leak free (as defined in Rule 4623). [District NSR Rule and 4623] Federally Enforceable Through Title V Permit
5. A leak free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves shall be inspected annually 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 upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. {2605} 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. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. {2606} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. VOC emissions from fugitive emissions sources in this permit unit shall not exceed 0.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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10. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using U.S. EPA publication 453/R-95-17, Table 2-4. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The control efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit
12. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1114-103-5

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

325 HP NATURAL GAS-FIRED CATERPILLAR MODEL G3406 IC ENGINE WITH THREE WAY CATALYST, DRIVING A GAS COMPRESSOR

## PERMIT UNIT REQUIREMENTS

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1. Permittee shall maintain with the permit accurate fugitive component count associated with operation of engine/compressor and resultant emissions calculated using EPA Publication 453/R-95-017, Table 2-4 factors. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The engine shall only burn natural gas with fuel gas sulfur content of 2.0 grains/100 Scf or less. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Air contaminant emissions shall not exceed any of the following: NO<sub>x</sub>: 25 ppmv @ 15% O<sub>2</sub>; VOC: 30 ppmv @ 15% O<sub>2</sub>; CO: 400 ppmv @ 15% O<sub>2</sub>; and PM<sub>10</sub>: 10.0 lb/MMscf. [District NSR Rule and District Rules 4702, 5.1] Federally Enforceable Through Title V Permit
4. The permittee shall monitor and record the stack concentrations of NO<sub>x</sub> (as NO<sub>2</sub>), CO, and O<sub>2</sub> at least once every calendar quarter using a portable emission monitor that meets District specifications [in stack O<sub>2</sub> monitors may be allowed if approved by the APCO]. Monitoring shall be performed not less than once every month for 12 months if 2 consecutive deviations are observed during quarterly monitoring. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 1 day of restarting the engine unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the last quarter if on a quarterly monitoring schedule. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District NSR Rule and District Rule 4702] Federally Enforceable Through Title V Permit
5. If the NO<sub>x</sub> and/or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the permitted emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing by this condition. [District NSR Rule and District Rule 4702] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District NSR Rule and District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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7. District witnessed or approved compliance source testing for NO<sub>x</sub>, VOC, and CO emission limits shall be demonstrated not less than once every 24 months. [District NSR Rule and District Rule 4702] Federally Enforceable Through Title V Permit
8. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
9. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
10. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
11. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25A or 25B, or ARB Method 100. [District Rule 1081, 4701, and 4702] Federally Enforceable Through Title V Permit
12. Fuel sulfur content and higher heating value shall be measured quarterly using gas chromatographic analysis to calculate SO<sub>x</sub> emission rate. Test reports of measured fuel sulfur content and higher heating value shall be maintained. The calculated SO<sub>x</sub> emission rate shall be recorded in format approved by the District. If compliance with the SO<sub>x</sub> emission rate has been demonstrated for 8 consecutive quarters for a fuel source, then the testing frequency shall be annually. If an annual fuel sulfur content and higher heating value testing fails to show compliance, quarterly testing shall resume. [District Rule 1070] Federally Enforceable Through Title V Permit
13. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
14. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Kern County Rule 407] Federally Enforceable Through Title V Permit
15. The sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D1072, D3031, D4084 or D3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Permittee shall operate this engine with a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of operating a nonresettable fuel meter, the owner or operator may use an alternative device, method, or technique in determining monthly fuel consumption provided that the alternative is approved by the APCO. Permittee shall maintain these required meters in proper operating condition. The fuel meter shall be calibrated periodically per the recommendations of the manufacturer. [District Rules 2201, 4701, and 4702] Federally Enforceable Through Title V Permit
17. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701 and 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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20. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit
21. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4409, 5.1.1]
22. For valves, threaded connections, flanges, pipes, pumps, compressors, and other components subject to the requirements of Rule 4409, but not specified in this permit; a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 1,000 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 2,000 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
23. For pressure relief devices (PRDs); a major gas leak is a detection of > 10,000 ppmv as methane; a minor gas leak is a detection of 200 to 10,000 ppmv as methane when the component is in liquid service; a minor gas leak is a detection of 400 to 10,000 ppmv as methane when the component is in gas/vapor service. [District Rule 4409, 5.1.1]
24. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.2]
25. Leaks detected during quarterly operator inspections shall not be counted towards determination of compliance with the provisions of Rule 4409 provided the leaking components are repaired as soon as practicable but not later than the time frame specified in this permit. Leaks detected during quarterly operator inspections that are not repaired, replaced, or removed from operation as soon as practicable but not later than the time frame specified in this rule shall be counted toward determination of compliance with the provisions of Rule 4409. [District Rule 4409, 5.1.3.2.1 and 5.1.3.2.2]
26. Leaking components at this facility detected during annual operator inspections, as required by Rule 4409 for a specific component type, that exceed the leak standards specified in this permit, shall constitute a violation of this rule. This violation is regardless of whether or not the leaking components are repaired, replaced, or removed from operation within the allowable repair time frame specified in this permit. [District Rule 4409, 5.1.3.2.3]
27. An open-ended line, or a valve located at the end of the line, that is not sealed with either a blind flange, a plug, a cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended line is a leak. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4409, 5.1.4.1]
28. For rule 4409 compliance, a leak from a component is when there is a major liquid leak from the component. A major liquid leak from a component is when a visible mist or a continuous flow of liquid, that is not seal lubricant, leaks from the component. [District Rule 4409, 5.1.4.2]
29. For rule 4409 compliance, a leak from a component is when gas emissions greater than 50,000 ppmv, as methane, leaks from the component. [District Rule 4409, 5.1.4.3]
30. A minor liquid leak from a component is when more than three drops of liquid per minute, that is not seal lubricant and is not a major liquid leak, leaks from the component. [District Rule 4409, 5.1.4.4]
31. For rule 4409 compliance, when 200 or fewer valves are inspected, a leak from a valve is when more than one valve has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 valves are inspected, a leak from a valve is when more than 0.5 % (rounded up to the nearest whole number) of the valves have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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32. For rule 4409 compliance, when 200 or fewer threaded connections are inspected, a leak from a threaded connection is when more than one threaded connection has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 threaded connections are inspected, a leak from a threaded connection is when more than 0.5 % (rounded up to the nearest whole number) of the threaded connections have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
33. For rule 4409 compliance, when 200 or fewer flanges are inspected, a leak from a flange is when more than one flange has a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. When greater than 200 flanges are inspected, a leak from a flange is when more than 0.5 % (rounded up to the nearest whole number) of the flanges have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
34. For rule 4409 compliance, when 200 or fewer pumps are inspected, a leak from a pump is when more than two pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. When greater than 200 pumps are inspected, a leak from a pump is when more than 1.0 % (rounded up to the nearest whole number) of the pumps have a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
35. For rule 4409 compliance, when compressors, PRDs, or other components not specified in this permit are inspected, a leak from these components is when more than one component has a minor liquid leak, a minor gas leak, or a gas leak greater than 10,000 ppmv and less than or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
36. For rule 4409 compliance, when pipes at natural gas processing facilities are inspected, a leak from a pipe is when more than two have a minor liquid leak, a minor gas leak, or a gas leak > 10,000 ppmv and < or equal to 50,000 ppmv. [District Rule 4409, 5.1.4.4]
37. For manned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once every 24 hours except when operators do not report to the facility during a 24 hour period. [District Rule 4409, 5.2.1]
38. For unmanned facilities all accessible operating pumps, compressors, and PRDs, in service, shall be audio-visually inspected for leaks at least once per calendar week. [District Rule 4409, 5.2.2]
39. All accessible operating pumps, compressors, and PRDs, in VOC service, that are found to be leaking by audio-visual inspection shall be attempted to be repaired immediately. The leaking component shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.3]
40. Except for inaccessible components, unsafe-to-monitor components, or pipes, all components, in VOC service, shall be tested for leaks at least once every calendar quarter. [District Rule 4409, 5.2.4]
41. Except for pumps, compressors, and PRDs, the permittee may apply for written approval from the District to change the inspection frequency of accessible components from quarterly to annually for a specific component type provided the following two qualifying requirements are met. During the previous five consecutive quarterly inspections, for the specific component type, there shall be no more leaks than as allowed by this permit. The permittee also shall not have received a Notice of Violation (NOV) from the District during the previous 12 months for violating any provisions of District Rule 4409 for the specific component type. If these two qualifying requirements have not been met, then the inspection frequency shall revert back to quarterly. The written request shall include pertinent documentation to demonstrate that the operator has successfully met the two qualifying requirements. [District Rule 4409, 5.2.9 and 5.2.10]
42. All new, replaced, or repaired fittings, flanges, and threaded connections shall be tested for leaks immediately after being placed into service. [District Rule 4409, 5.2.5]
43. All inaccessible components shall be tested for leaks at least once every 12 months. [District Rule 4409, 5.2.6]
44. All unsafe-to-monitor components shall be tested for leaks during each turnaround. [District Rule 4409, 5.2.7]
45. All pipes shall be visually inspected for leaks at least once every 12 months. [District Rule 4409, 5.2.8]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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46. All pipes, in VOC service, that are found to be leaking by visual inspection shall be attempted to be repaired immediately. The leaking pipe shall then be tested within 24 hours and, if found leaking again, shall be repaired as soon as practicable but not later than the timeframe specified in this permit. [District Rule 4409, 5.2.8.1]
47. The annual pipe inspection required by either the Department of Oil, Gas, and Geothermal Resources (DOGGR) pursuant to California Code of Regulation Title 14, Division 2, Subchapter 2, Section 1774 (Oilfield Facilities and Equipment Maintenance), or by the Spill Prevention Control and Countermeasure Plan (SPCC) pursuant to 40 Code of Federal Regulation Part 112 (Oil Prevention and Response: Non-Transportation-Related Onshore and Offshore Facilities) can be used as the annual pipe inspection required by District Rule 4409. [District Rule 4409, 5.2.8.2]
48. The permittee shall notify the District in writing within five calendar days after changing the inspection frequency for a specific component type. The written notification shall include the reason(s) and date of change to a quarterly inspection frequency. [District Rule 4409, 5.2.11]
49. A PRD that releases to the atmosphere shall be inspected by the permittee for leaks as soon as practicable but not later than 24 hours after the time of the release. The permittee shall reinspect the PRD for leaks not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the date of the initial release. If the PRD is found by the permittee to be leaking during either inspection, the PRD leak shall be treated as if the leak was found during the required quarterly operator inspections. [District Rule 4409, 5.2.12]
50. Except for PRDs, a component shall be inspected for leaks not later than 15 calendar days after repairing the leak or replacing the component. [District Rule 4409, 5.2.13]
51. District inspections shall not be counted as an operator inspection required by District Rule 4409. Any attempt by an operator to count such District inspections as part of the operator's mandatory inspections is considered a willful circumvention of the rule and is a violation of this rule. [District Rule 4409, 5.2.14]
52. For rule 4409 compliance, the operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag, bearing the date and time when the leak was detected and the date and time of the leak measurement. For gaseous leaks, the tag shall indicate the leak concentration in ppmv. For liquid leaks, the tag shall indicate whether it is a major liquid leak or a minor liquid leak. The tag shall indicate, when applicable, whether the component is an essential component, an unsafe-to-monitor component, or a critical component. The tag shall remain in place until the leaking component is repaired or replaced and reinspected and found to be in compliance with the requirements of rule 4409. [District Rule 4409, 5.3.1]
53. The operator shall minimize all component leaks immediately, to the extent possible, but not later than one hour after detection of the leak in order to stop or reduce leakage to the atmosphere. If the leak has been minimized but the leak still exceeds the applicable leak standards specified in this permit, the operator shall do one of the following within the timeframes specified within this permit: 1) repair or replace the leaking component; 2) vent the leaking component to a closed vent system; 3) or remove the leaking component from operation. A closed vent system is a District approved system that is not open to the atmosphere. It is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a District approved control device that has a overall VOC collection and destruction or removal efficiency of at least 95%, or that transports gases or vapors back to a process system. [District Rule 4409, 5.3.4 and 5.3.5]
54. For rule 4409 compliance, the operator shall repair minor gas leaks within seven days. The operator shall repair major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, within three days. The operator shall repair major gas leaks, which are > 50,000 ppmv, within two days. The operator shall repair minor liquid leaks within three days. The operator shall repair major liquid leaks within two days. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period. The start of the repair period shall be the time of the initial leak detection. [District Rule 4409, 5.3.4 and 5.3.5]
55. For rule 4409 compliance, for each calendar quarter, the operator may extend the repair period for a total number of leaking components, not to exceed 0.05 % of the number of components inspected, by type, rounded upward to the nearest whole number. The repair period for minor gas leaks can be extended by seven additional days. The repair period for major gas leaks, which are > 10,000 ppmv but < or equal to 50,000 ppmv, can be extended by two additional days. [District Rule 4409, 5.3.5]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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56. For rule 4409 compliance, if a leaking component is an essential component or a critical component and which cannot be shut down immediately for repairs, the operator shall do the following: 1) minimize the leak within one hour after detection of the leak; 2) and if the leak has been minimized, but the leak still exceeds the applicable leak standards of Rule 4409 as specified in this permit, the essential component or critical component shall be repaired or replaced to eliminate the leak during the next process unit turnaround. The repair shall occur no later than one year from the date of the original leak detection. [District Rule 4409, 5.3.6]
57. For rule 4409 compliance, for any component that has incurred five repair actions for major gas leaks or major liquid leaks, or a combination of major gas leaks and major liquid leaks within a continuous 12-month period, the operator shall do one of the following four options. Options 1a through 1f require written notification to the District, option 2 requires written notification to the District and written District approval, options 3 and 4 do not require written notification to the District: 1a) For compressors replace the existing seal with either a dual mechanical seal, an oil film seal, a gas seal, or a face-type seal; 1b) for pumps replace the pump with a seal-less pump or replace the seal with a dual mechanical seal; 1c) for PRDs replace the PRD and install a rupture disc in the line which precedes the PRD such that the PRD is in series with and follows the rupture disc; 1d) for valves replace the valve with a sealed bellows valve, or for seal rings install graphite or Teflon chevron seal rings in a live-loaded packing gland; 1e) for threaded connections weld the connections or replace threaded connections with flanges; 1f) for sampling connections replace the sampling connection with a closed-loop sampling system; 2) Replace the component with Achieved-in-Practice Best Available Control Technology (BACT) equipment; 3) Vent the component to a District approved closed-vent system; 4) Remove the component from operation. For any component that is accessible, is not unsafe-to-monitor, is not an essential component, or is not a critical component, the operator shall comply with these requirements as soon as practicable but not later than twelve months after the date of detection of the fifth major leak within a continuous 12-month period. For any component that is inaccessible, is unsafe-to-monitor, is essential, or is a critical component, the operator shall comply with these requirements as soon as practicable but not later than the next turnaround or not later than two years after the date of detection of the fifth major leak within a continuous 12-month period, whichever comes first. [District Rule 4409, 5.3.7]
58. All major components and critical components shall be physically identified clearly and visibly for inspection, repair, and recordkeeping purposes. The physical identification shall consist of labels, tags, manufacturer's nameplate identifier, serial number, or model number, or other system approved by the District that enables an operator or the District to locate each individual component. The operator shall replace physical identifications that become missing or unreadable as soon as practicable but not later than 24 hours after discovery. [District Rule 4409, 5.4.1]
59. The operator shall keep a copy of the District approved Operator Management Plan (OMP) at the facility and make it available to the District, ARB, and EPA upon request. [District Rule 4409, 6.1.2]
60. By January 30th of each year the operator shall submit to the District for approval, in writing, an annual report indicating any changes to the existing OMP on file at the District. [District Rule 4409, 6.1.4]
61. For rule 4409 compliance, the operator shall maintain an inspection log that has been signed and dated by the facility operator responsible for the inspection, certifying the accuracy of the information recorded in the log. The inspection log shall contain, at a minimum, all of the following information: 1) The total number of components inspected, and the total number and percentage of leaking components found by component types; 2) The location, type, name or description of each leaking component and the description of any unit where the leaking component is found; 3) Date of the leak detection and method of the leak detection; 4) For gaseous leaks, record the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of the leaking component(s); 6) The identification and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes first; 7) The method(s) used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number. [District Rule 4409, 6.2.1]
62. Records of leaks detected during quarterly or annual operator inspections, and each subsequent repair and re-inspection, shall be submitted to the District, ARB, and EPA upon request. [District Rule 4409, 6.2.2]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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63. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4409, 6.2.3]
64. All records required by this permit shall be retained on-site for a minimum of five years and made available for District, ARB, and EPA inspection upon request. [District Rule 4409, 6.2.4]
65. All measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instructions not more than 30 days prior to its use. [District Rules 4409, 6.3.1 and 4702]
66. The VOC content by weight percent shall be determined using ASTM D-1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids. [District Rule 4409, 6.3.2]
67. The percent by volume liquid evaporated at 302 °F (150 °C) shall be determined using ASTM D-86. [District Rule 4409, 6.3.3]
68. The TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D-323, and converting the RVP to TVP at the maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures specified in Appendix A of District Rule 4409. [District Rule 4409, 6.3.4]
69. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM D-287 or ASTM 1298. Sampling for API gravity shall be performed in accordance with ASTM D-4057. [District Rule 4409, 6.3.5]
70. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4409, 6.3.6]
71. Halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422. [District Rule 4409, 6.3.7]
72. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070 and 4702, 6.2.2; 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
73. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ]
74. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ]
75. On and after October 19, 2013, the engine's oil and filter shall be changed every 4,320 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ]
76. On and after October 19, 2013, the engine's spark plugs shall be inspected every 4,320 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ]
77. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 4,320 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ]

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

78. On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [District Rule 1070 and 40 CFR 63, ZZZZ]
79. On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ]
80. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ]

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:** S-1114-104-3

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

3,000 BBL (126,000 GALLON) FIXED ROOF PETROLEUM STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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:** S-1114-105-3

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE 15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

3,000 BBL (126,000 GALLON) FIXED ROOF PETROLEUM STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-78 (MIDWAY SUNSET FIELD 15A TANK BATTERY)

## PERMIT UNIT REQUIREMENTS

1. Vapor space pressure in tanks shall be controlled by gas blanketing system. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PUC-quality, PUC-regulated, inert gas or equivalent shall be used as blanketing gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
5. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. A liquid leak is defined as an organic liquid drip rate of more than three drops per minute and such a rate is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Any tank gauging or sampling device on a tank vented to the vapor control system shall be maintained to be leak-free and the cover shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. Except as otherwise provided in this permit, the permittee shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The same component found to be leaking on two consecutive annual inspections is in violation of District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623] Federally Enforceable Through Title V Permit
9. Permittee shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520] 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.

10. The VOC content of the gas in the vapor control system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Permittee shall conduct quarterly gas sampling for gas leaving the tank's vapor space. If the VOC content of the gas sample is equal to or less than 10% VOC by weight for 8 consecutive quarterly samples, sampling frequency shall only be required annually. If the VOC content of the gas sample is greater than 10% VOC content for any sample, the source shall resume fugitive component counts for all components associated with the tank until the VOC content of at least 2 consecutive quarterly gas samples are equal to or less than 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Permittee shall also visually or ultrasonically inspect, as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Upon detection of a liquid leak, with a leak rate of greater than or equal to 30 drops per minute, permittee shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, permittee shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Components found to be leaking fluids (liquids or gases) shall be immediately affixed with a tag showing the component to be leaking. Permittee shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Leaking components that have been discovered by the permittee that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3, shall not constitute a violation of this rule. Leaking components, as defined by District Rule 4623, discovered by District staff that were not previously identified and/or tagged by the permittee, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3, shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
17. If a component type for a given tank is found to leak during an annual inspection, permittee shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components of that component type are found to leak after four consecutive quarters, the permittee may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
18. The permittee shall keep accurate records of the date VOC sampling occurred, who performed the sampling and testing, and the results. [District Rule 2520] Federally Enforceable Through Title V Permit
19. All monitoring data, support information and records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 1070] 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:** S-1114-106-2

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE15 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

3,000 BBL (126,000 GALLON) FIXED ROOF PETROLEUM STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-78

## PERMIT UNIT REQUIREMENTS

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1. Tank shall be equipped with a fixed roof with no holes or openings. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank shall vent only to vapor control system listed on permit S-1114-78. Vapor control system shall have a minimum control efficiency of 99%. [District Rule 4623] Federally Enforceable Through Title V Permit
3. Tank vapors shall be disposed of only by injection in DOGGR approved gas disposal well(s). [District Rule 4623] Federally Enforceable Through Title V Permit
4. Permittee shall submit copies of DOGGR approval of gas disposal well(s) prior to injection. [District Rule 4623] Federally Enforceable Through Title V Permit
5. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
6. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
7. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.1.7] Federally Enforceable Through Title V Permit
8. The control efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4623, 6.4.6] 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.

9. {2604} 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 upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. {2605} 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. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. {2606} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
12. {2607} Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (Amended December 20, 2001). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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: S-1114-107-3

EXPIRATION DATE: 02/28/2011

## EQUIPMENT DESCRIPTION:

77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10

## PERMIT UNIT REQUIREMENTS

1. This unit may be operated at the following locations: Sections 14 & 15, T31S, R22E, Sections 18, 19, and 20, T11N, R23W, and Section 24, T26S, R20E. [District Rule 4102]
2. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]
3. Permittee shall determine the higher heating value (hhv) of the fuel at least once per year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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 2201] Federally Enforceable Through Title V Permit
5. Emissions rates shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 7 ppmv @ 3% O<sub>2</sub> or 0.008 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>) 0.00285 lb/MMBtu, PM<sub>10</sub>: 0.0076 lb/MMBtu, CO: 42 ppmv @ 3% O<sub>2</sub> or 0.031 lb/MMBtu, or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
6. Combined maximum emissions from steam generators S-1114-107, '-114, and '-115 shall not exceed any of the following limits: 5,438 lb-NO<sub>x</sub>/yr, 1,937 lb-SO<sub>x</sub>/yr, 5,166 lb-PM<sub>10</sub>/yr, 21,073 lb-CO/yr, and 3,739 lb-VOC/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. Maximum annual fuel consumption in steam generators S-1114-107, '-114, and '-115 shall not exceed 679,776 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] 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. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. Permittee shall maintain records of fuel gas sulfur content and higher heating value. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Permittee shall maintain annual records of combined fuel use (in MMBtu/year) for steam generators S-1114-107, '114, and '115. [District Rule 2201] 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. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] 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: S-1114-109-1

EXPIRATION DATE: 02/28/2011

## EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF PETROLEUM STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-54

## PERMIT UNIT REQUIREMENTS

1. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623, 5.6.2] Federally Enforceable Through Title V Permit
2. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
3. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total hydrocarbon content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] 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. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
12. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. If a component type for a given tank is found to leak during an annual inspection, operator shall conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If no components are found to leak after four consecutive quarters, the operator may revert to annual inspections. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
15. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit
17. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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: S-1114-110-1

EXPIRATION DATE: 02/28/2011

## EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF PETROLEUM STORAGE TANK CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1114-54

## PERMIT UNIT REQUIREMENTS

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1. All piping, valves, and fittings shall be constructed and maintained in a gas-tight condition. [District Rule 4623] Federally Enforceable Through Title V Permit
2. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
3. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from the components in gas service on tank shall not exceed 1.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall maintain accurate component count for tank according to EPAs "Protocol for Equipment Leak Emission Estimate," Table 2-4, Oil and Gas Production Operations Average Emission factors. Permittee shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total hydrocarbon content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of the tank vapor space and tank vapor control system gas shall be tested at least once annually. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or an equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. [District Rule 2201 and 4623] Federally Enforceable Through Title V Permit
10. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
11. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623] 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. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070] Federally Enforceable Through Title V Permit
13. {2607} Compliance with permit conditions in the Title V permit shall be deemed compliance with District Rule 4623 (Amended December 20, 2001). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
14. {2608} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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:** S-1114-111-1

**EXPIRATION DATE:** 02/28/2011

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN LOW-NOX LEL BURNER  
AUTHORIZED TO BE OPERATED AT VARIOUS SPECIFIED LOCATIONS

## PERMIT UNIT REQUIREMENTS

1. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0085 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 42 ppmvd CO @ 3% O<sub>2</sub> or 0.031 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
2. This steam generator is approved for operation at the following locations: SE/4 Section 14 and SE/4 Section 15, Township 31 South, Range 22 East, and NE/4 Section 24, Township 26 South, Range 20 East, MDB&M. [District NSR Rule and CH&SC 41700] Federally Enforceable Through Title V Permit
3. Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit
4. This steam generator and Unit S-1114-16 shall not be operated at the same permitted location at the same time. [District Rule 2201 and CH&SC 41700] Federally Enforceable Through Title V Permit
5. Flue gas recirculation system shall be operated whenever generator is operated. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
7. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] 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.

8. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 4306, and 4320] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 4306, and 4320] Federally Enforceable Through Title V Permit
10. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 4306, and 4320] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 4306, and 4320] Federally Enforceable Through Title V Permit
13. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
16. Permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content at least annually. Records of fuel gas sulfur content analysis shall be kept for a period of five years and made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
17. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and fuel gas sulfur content - ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rule 2520, 9.3.2, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
19. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] 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.

20. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, and 4305. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] 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:** S-1114-112-1

**EXPIRATION DATE:** 02/28/2011

**SECTION:** NE24 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

107 BBL WEMCO MODEL 66 DEPURATOR WITH VAPOR PIPING TO SHARED VAPOR RECOVERY SYSTEM LISTED ON TANK PERMIT S-1114-54 (SECURITY LEASE)

## PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The vapor space of the Wemco unit shall be connected to the vapor recovery system listed on S-1114-54 by a system that is constructed and maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This Wemco unit shall be maintained in a leak-free condition. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
4. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623, 5.6.3] Federally Enforceable Through Title V Permit
5. Fugitive VOC emissions from the Wemco unit shall not exceed 0.3 lb-VOC/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content of the tank vapor space and tank vapor control system gas shall not exceed 68% of the total organic compound content by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain with the permit an accurate fugitive component count and the resulting emissions calculated pursuant to EPA document, "EPA Protocol for Equipment Leak Emission Estimate," Table 2-4, "Oil and Gas Production Operations," using average emission factors. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operator shall visually inspect tank shell, hatches, seals, seams, cable seals, valves, flanges, connectors, and any other piping components directly affixed to the tank and within five feet of the tank at least once per year for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. Operator shall also visually or ultrasonically inspect as appropriate, the external shells and roofs of uninsulated tanks for structural integrity annually. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
9. Upon detection of a liquid leak, defined as a leak rate of greater than or equal to 30 drops per minute, operator shall repair the leak within 8 hours. For leaks with a liquid leak rate of between 3 and 30 drops per minute, the leaking component shall be repaired within 24 hours after detection. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
10. Upon detection of a gas leak, defined as a VOC concentration of greater than 10,000 ppmv measured in accordance with EPA Method 21, operator shall take one of the following actions: 1) eliminate the leak within 8 hours after detection; or 2) if the leak cannot be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices, and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate a leak exceed 56 hours after detection. [District Rule 4623, Table 3] 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. Components found to be leaking either liquids or gases shall be immediately affixed with a tag showing the component to be leaking. Operator shall maintain records of the liquid or gas leak detection readings, date/time the leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
12. Leaking components that have been discovered by the operator that have been immediately tagged and repaired within the timeframes specified in District Rule 4623, Table 3 shall not constitute a violation of this rule. Leaking components as defined by District Rule 4623 discovered by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within the timeframes specified in District Rule 4623, Table 3 shall constitute a violation of this rule. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
13. Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rule 4623, Table 3] Federally Enforceable Through Title V Permit
14. A leak-free condition is defined as a condition without a gas leak or liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with US EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623, 3.17] Federally Enforceable Through Title V Permit

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

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