



JAN 10 2012

Brad Elliot  
Seneca Western Minerals Corp.  
2131 Mars Court  
Bakersfield, CA 93308

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # S-3755  
Project # S-1104827**

Dear Mr. Elliot:

Enclosed for your review and comment is the District's analysis of Seneca Western Minerals Corporation's application for the Federally Mandated Operating Permit for its oil and natural gas production operation in 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

cc: Vanesa Gonzalez, Permit Services Engineer

Attachments



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 - Federally Mandated Operating Permit  
District Facility # S-3755  
Project # S-1104827**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Seneca Western Minerals Corporation's application for the Federally Mandated Operating Permit for its oil and natural gas production operation in 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

cc: Vanesa Gonzalez, Permit Services Engineer

Attachments



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 - Federally Mandated Operating Permit  
District Facility # S-3755  
Project # S-1104827**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Seneca Western Minerals Corporation's application for the Federally Mandated Operating Permit for its oil and natural gas production operation in 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

cc: Vanesa Gonzalez, Permit Services Engineer

Attachments

Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
FEDERALLY MANDATED OPERATING PERMITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of the Federally Mandated Operating permits to Seneca Western Minerals Corp. for its oil and natural gas production operation in Heavy Oil Western, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1104827, 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 Federally Mandated Operating initial permits. If requested by the public, the District will hold a public hearing regarding issuance of this initial permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial 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 UNIFIED AIR POLLUTION CONTROL DISTRICT**

**Seneca Western Minerals Corp.**

## **PROPOSED ENGINEERING EVALUATION TABLE OF CONTENTS**

<b>SECTION</b>	<b>PAGE</b>
<b>I. PROPOSAL</b>	<b>1</b>
<b>II. FACILITY LOCATION</b>	<b>1</b>
<b>III. EQUIPMENT LISTING</b>	<b>1</b>
<b>IV. GENERAL PERMIT TEMPLATE USAGE</b>	<b>1</b>
<b>V. SCOPE OF EPA AND PUBLIC REVIEW</b>	<b>2</b>
<b>VI. APPLICABLE REQUIREMENTS ADDRESSED BY A GENERAL PERMIT TEMPLATE</b>	<b>2</b>
<b>VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY A GENERAL PERMIT TEMPLATE</b>	<b>3</b>
<b>VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE</b>	<b>4</b>
<b>IX. COMPLIANCE</b>	<b>4</b>
<b>X. PERMIT SHIELD</b>	<b>26</b>
<b>XI. PERMIT CONDITIONS</b>	<b>26</b>
<b>ATTACHMENT A - DETAILED FACILITY PRINTOUT</b>	
<b>ATTACHMENT B - EXEMPT EQUIPMENT</b>	
<b>ATTACHMENT C - CURRENT DISTRICT PTO</b>	

# TITLE V APPLICATION REVIEW

Project #: S-1104827  
Deemed Complete: 8/24/10

Engineer: Vanesa Gonzalez  
Date: January 9, 2012

Facility Number: S-3755  
Facility Name: Seneca Western Minerals Corp.  
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

## 9. PROPOSAL

Seneca Western Minerals Corp. is proposing that an initial Title V permit be issued for its oil and natural gas production facility located in Heavy Oil Western, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

## II. FACILITY LOCATION

Seneca Western Minerals Corp is located at Heavy Oil Western.

## III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment A.

A summary of the exempt equipment categories, which describe the insignificant activities or equipment at the facility not requiring a permit, is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

## IV. GENERAL PERMIT TEMPLATE USAGE

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

A. Facilitywide SJV-UM-0-3

The applicant has requested to utilize template #SJV-UM-0-3 for the facilitywide requirements. Based on the information submitted on 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 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 1-41 of the requirements for permit unit #S-3755-0-1.

**VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES**

District Rule 1100, Equipment Breakdown (amended December 17, 1992)

District Rule 1160, Emission Statements (adopted November 18, 1992)

District Rule 2010, Permits Required (amended December 17, 1992)

District Rule 2020, Exemptions (amended March 21, 2002 ⇒ amended August 18, 2011)

District Rule 2031, Transfer of Permits (adopted December 17, 1992)

District Rule 2040, Applications (amended December 17, 1992)

District Rule 2070, Standards for Granting Applications (adopted December 17, 1992)

District Rule 2080, Conditional Approval (amended December 17, 1992)

District Rule 2520, Federally Mandate Operating Permits (amended June 21, 2001)

District Rule 4101, Visible Emissions (amended February 17, 2005)

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

District Rule 4601, Architectural Coatings (December 17, 2009)

District Rules 8021, 8031, 8041, 8051, 8061, Fugitive Dust (PM10) Emissions  
(amended August 19, 2004)

District Rules 8071, Fugitive Dust (PM10) Emissions (amended September 16,  
2004)

## **VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES**

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

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

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

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 4306, Boilers, Steam Generators, Process Heaters (adopted October  
16, 2008)

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

District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam  
Generators, and Process Heaters Greater Than 5 MMBtu/hr (adopted October  
16, 2008)

District Rule 4401, Steam Enhanced Crude Oil Production (amended June 16,  
2011)



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

District Rule 4801, Sulfur Compounds (adopted December 17, 1992)

## **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.

This facility is subject to the following rules that are not currently federally enforceable:

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

For this facility, condition 42 of the facility wide requirements S-3577-0-1 is based on the rule listed above and is not Federally Enforceable through Title V.

## **IX. COMPLIANCE**

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

#### **1. Facility Wide Requirements**

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility wide requirements as condition numbers 1 through 41 to assure compliance with these requirements.

### **B. Requirements Not Addressed by Model General Permit Templates**

#### **1. District Rule 1070 – Inspections**

The purpose of this rule is to explain the District's authority in determining compliance with the requirements of these rules and regulations. This rule shall apply to any source operation which emits or may emit air contaminants.

- a. S-3755-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

Conditions 24 and 26 of the permit requirements ensure compliance with this rule.

- b. S-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H<sub>2</sub>S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 7 through 11, and 14 of the permit requirements ensure compliance with this rule.

- c. S-3755-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Conditions 5 and 29 of the permit requirements ensure compliance with this rule.

## **2. District Rule 1081 – Source Sampling**

The purpose of this rule is to ensure that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

The provisions of this rule shall apply to any source operation which emits or may emit air contaminants.

- a. S-3755-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

Conditions 3, 14, 15, and 18 of the permit requirements ensure compliance with this rule.

- b. S-3755-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Conditions 22 and 27 of the permit requirements ensure compliance with this rule.

### **3. District Rule 2002 – 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.

### **4. District Rule 2201- New and Modified Stationary Source Review Rule (District NSR Rule)**

- a. S-3755-6-4: 1500 BBL CONSTANT LEVEL FIXED-ROOF WASH TANK

Permit unit S-3755-6-4 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Conditions 1 through 12 from the PTO have been included as conditions 1 through 12 of the permit requirements.

- b. S-3755-7-3: 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1001" WITH PV-VENT

Permit unit S-3755-7-3 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Conditions 1 through 14 from the PTO have been included as conditions 1 through 14 of the permit requirements.

c. S-3755-8-3: 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1002" WITH PV-VENT

Permit unit S-3755-8-3 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Conditions 1 through 14 from the PTO have been included as conditions 1 through 14 of the permit requirements.

d. S-3755-9-3: 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1003" WITH PV-VENT

Permit unit S-3755-9-3 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Conditions 1 through 14 from the PTO have been included as conditions 1 through 14 of the permit requirements.

e. S-3755-10-7: 16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

Permit unit S-3755-10-7 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Conditions 1 through 14 from the PTO have been included as conditions 1 through 14 of the permit requirements.

f. S-3755-11-6: 20 MMBTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

Permit unit S-3755-11-6 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Conditions 1 through 23 from the PTO have been included as conditions 1 through 23 of the permit requirements.
- Condition 24 from the PTO has been included as condition 23 of the permit requirements.
- Conditions 25 through 27 from the PTO have been included as conditions 24 through 26 of the permit requirements.
- Condition 27 was added to the permit requirements for Rule 4306 compliance.

g. S-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H<sub>2</sub>S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Permit unit S-3755-12-12 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Condition 1 from the PTO has been included as condition 42 of the facility wide requirements.
- Condition 2 from the PTO has been included as condition 22 of the facility wide requirements.
- Conditions 3 through 14 from the PTO have been included as conditions 1 through 12 of the permit requirements.
- Condition 15 from the PTO has been removed and included in condition 21 of the permit requirements.
- Condition 16 from the PTO has been removed and included in conditions 26 and 43 of the permit requirements.
- Condition 17 from the PTO has been included as condition 13 of the permit requirements.
- Conditions 21 through 54 from the PTO have been included as conditions 14 through 47 of the permit requirements.
- Condition 55 of the PTO has been included as condition 43 of the facility wide requirements.

h. S-3755-16-1: 200 BBL (8,400 GALLONS) FIXED ROOF CRUDE OIL/WATER STORAGE TANK WITH PV VALVE LOCATED NEAR WELL 252H-20

Permit unit S-3755-16-1 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated

July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Condition 1 from the PTO has been included as condition 42 of the facility wide requirements.
  - Conditions 2 through 16 from the PTO have been included as conditions 1 through 15 of the permit requirements.
- i. S-3755-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Permit unit S-3755-19-5 was subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permit.

- Condition 1 from the PTO has been included as condition 22 of the facility wide requirements.
- Conditions 2 through 5 from the PTO have been included as conditions 1 through 4 of the permit requirements.
- Condition 6 from the PTO was removed. This condition refers to start up requirements that have been met.
- Conditions 7 through 29 from the PTO have been included as conditions 5 through 27 of the permit requirements.
- Condition 30 from the PTO was removed. This condition refers to start up requirements that have been met.
- Condition 31 and 32 from the PTO have been included as conditions 28 and 29 of the permit requirements.

## **5. 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.

## **6. District Rule 4201 – Particulate Matter Concentration**

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. This rule shall apply to any source operation which emits or may emit dust, fumes, or total suspended particulate matter.

Per Section 3.0, a person shall not release or discharge into the atmosphere from any single source operation, dust, fumes, or total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions, as determined by the test methods in section 4.0.

- a. S-3755-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

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

## **7. District Rule 4301 – Fuel Burning Equipment**

The purpose of this rule is to limit the emission of air contaminants from fuel burning equipment. This rule limits the concentration of combustion contaminants and specifies maximum emission rates for sulfur dioxide, nitrogen oxide and combustion contaminant emissions. The provisions of this rule shall apply to any fuel burning equipment except air pollution control equipment which is exempted according to Section 4.0.

Per 5.1, a person shall not discharge into the atmosphere combustion contaminants exceeding in concentration at the point of discharge, 0.1 grain per cubic foot of gas calculated to 12% of carbon dioxide at dry standard conditions.

Per 5.2, a person shall not build, erect, install or expand any non-mobile fuel burning equipment unit unless the discharge into the atmosphere of contaminants will not and does not exceed any one (1) or more of the following rates:

- 200 pounds per hour of sulfur compounds, calculated as sulfur dioxide (SO<sub>2</sub>);
- 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO<sub>2</sub>);
- Ten (10) pounds per hour of combustion contaminants as defined in Rule 1020 (Definitions) and derived from the fuel.

Per 5.3, nothing in this rule shall be construed as preventing the maintenance or preventing the alteration or modification of an existing fuel burning equipment unit which will reduce its mass rate of air contaminant emissions.

- a. S-3755-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

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

#### **8. District Rule 4305 – Boilers, Steam Generators, and Process Heaters – Phase 2**

The purpose of this rule is to limit emissions of oxides of nitrogen (NO<sub>x</sub>) and carbon monoxide (CO) from any gaseous fuel or liquid fuel fired boilers, steam generators, and process heaters with a rated heat input greater than 5 million Btu per hour. The rule was amended in August 21, 2003.

The following permit requirements ensure compliance with this rule:

- a. S-1114-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

Conditions 5, 6, 16, 17, 19 through 23, and 26 of the permit requirements ensure compliance with this section.

- b. S-1114-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Conditions 11 through 14, 18 through 21, 23 through 26, and 29 of the permit requirements ensure compliance with this section.

#### **9. 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-1114-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

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

- b. S-1114-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Condition 8 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.

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 Nox, CO and O<sub>2</sub> monthly monitoring.

Section 5.5 contains monitoring determination.

- a. S-1114-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

Conditions 9 through 13, 16, 17, and 22 of the permit requirements ensure compliance with this section.

- b. S-1114-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Condition 11 through 14, 20, 21, and 26 of the permit requirements ensure compliance with this section.

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.

The following permit requirements ensure compliance with this rule:

- a. S-1114-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

Conditions 19 through 21, 23, 26, and 27 of the permit requirements ensure compliance with this section.

- b. S-1114-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Condition 18, 19, 23, 24, 25, and 29 of the permit requirements ensure compliance with this section.

## **10. 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 Flare Minimization Plan – Effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.

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-3755-10-7: 16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

Conditions 3, 4, 5, 7, 8 and 15 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.

Per section 6.2.1, effective on and after July 1, 2011, the operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time.

The reportable flaring event required in section 6.2.2 and annual monitoring report required in section 6.2.3 are required effective on and after July 1, 2012.

Per Section 6.3 contains the test methods to show compliance with this rule.

Per 6.4.1 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).

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-3755-10-7: 16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

Conditions 14, 16 and 17 of the permit requirements ensure compliance with these sections.

## **11. 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 (PM<sub>10</sub>) 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 section 5.2 and 5.4.

Section 5.2 contains the NO<sub>x</sub> and CO emissions limits. This section also contains compliance dates. Per Table 1, steam generators at oilfields with a total rated heat input > 5.0 MMBtu/hr to ≤ 20.0 MMBtu/hr shall submit an Authority to Construct Application for rule compliance by July 1, 2011 and be in compliance with the emission limits of this section by July 1, 2012. Per Table 1, steam generators at oilfields with a total rated heat input > 20.0 MMBtu/hr choosing to meet the staged enhanced emissions limits shall submit an Authority to Construct Application for rule compliance by July 1, 2011 and be in compliance with the emission limits of this section by July 1, 2012.

Section 5.4, contains particulate matter control requirements. The units are not required to meet this sections requirements until the applicable NO<sub>x</sub> Compliance Deadline specified in Section 5.2 Table 1.

The facility has received Authorities to Construct to modify both of its steam generators to bring them into compliance with this rule.

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

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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Condition 15 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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 16 and 17 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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 18, 19, and 20 of the permit requirements ensure compliance with these sections.

Section 5.4 contains inspection and re-inspection requirements.

- a. S-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 21 through 27 of the permit requirements ensure compliance with these sections.

Section 5.5 contains leak repair requirements.

- a. S-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 28 through 34 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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Condition 35 of the permit requirements ensures 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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 36 through 40 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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Condition 41 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-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H<sub>2</sub>S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 42, 43, 44, and 45 of the permit requirements ensure compliance with these sections.

Section 7.0 includes the compliance schedule for this rule.

- a. S-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H<sub>2</sub>S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

Conditions 46 and 47 of the permit requirements ensure compliance with these sections.

### **13. District Rule 4623 – Storage of Organic Liquids**

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

Per Section 4.4, tanks exclusively receiving and/or storing an organic liquid with a TVP less than 0.5 psia are exempt from all other requirements of the rule except for complying with the following provisions:

- TVP and API Gravity Testing provisions pursuant to Section 6.2,
- Recordkeeping provisions pursuant to Section 6.3.6,
- Test Methods provisions pursuant to Section 6.4, and
- Compliance schedules pursuant to Section 7.2.

- a. S-3755-6-4: 1500 BBL CONSTANT LEVEL FIXED-ROOF WASH TANK

Conditions 2, and 4 through 12 of the permit requirements ensure compliance with this rule.

- b. S-3755-7-3, -8-3, and -9-3: 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH PV-VENT

Conditions 4, and 6 through 14 of the permit requirements ensure compliance with this rule.

- c. S-3755-16-1: 200 BBL (8,400 GALLONS) FIXED ROOF CRUDE OIL/WATER STORAGE TANK WITH PV VALVE LOCATED NEAR WELL 252H-20

Conditions 4, and 7 through 15 of the permit requirements ensure compliance with this rule.

#### **14. District Rule 4801 – Sulfur Compounds**

The purpose of this rule is to limit the emissions of sulfur compounds. A maximum concentration and test method are specified. The provisions of this rule shall apply to any discharge to the atmosphere of sulfur compounds, which would exist as a liquid or a gas at standard conditions.

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO<sub>2</sub>), on a dry basis averaged over 15 consecutive minutes. EPA Method 8 and ARB Method 1-100 (Continuous Emission Stack Sampling) shall be used to determine such emissions.

- a. S-3755-10-7: 16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

Condition 10 of the permit requirements ensures compliance with this rule.

#### **15. 40 CFR Part 64 – Compliance Assurance Monitoring (CAM)**

To be subject to CAM for a particular pollutant, an emissions unit must meet all of the following criteria:

- The unit must have an emission limit for the pollutant,
- The unit must have add-on controls for the pollutant, and
- The pre-control potential to emit for the unit must exceed major source thresholds.

- a. S-3755-6-4: 1500 BBL CONSTANT LEVEL FIXED-ROOF WASH TANK

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- b. S-3755-7-3: 1500 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1001" WITH PV-VENT

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- c. S-3755-8-3: 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1002" WITH PV-VENT

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- d. S-3755-9-3: 1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1003" WITH PV-VENT

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- e. S-3755-10-7: 16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- f. S-3755-11-6: 20 MM BTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- g. S-3755-12-12: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H<sub>2</sub>S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

This permit unit has an emissions limit for VOC and is equipped with casing vent vapor control 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 unit that is served by such system is subject to the requirements of CAM.

- h. S-3755-16-1: 200 BBL (8,400 GALLONS) FIXED ROOF CRUDE OIL/WATER STORAGE TANK WITH PV VALVE LOCATED NEAR WELL 252H-20)

This unit is not equipped with an add-on control. Therefore, CAM is not triggered.

- i. S-3755-19-5: 25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

This permit unit has emissions limits for SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC but it does not have add-on controls for these criteria pollutants. Therefore, this permit unit is not subject to CAM for SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

This permit may be subject to CAM for NO<sub>x</sub>, as there is a NO<sub>x</sub> limit, and has add-on controls in the form of FGR. However, 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. Therefore, this permit unit is not subject to CAM

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 these units is limited by Rule 4306 to 14 ppmv @ 3% O<sub>2</sub> or 0.0170 lb-MMBtu/hr. The maximum rating for these units is 25 MMBtu/hr.

$$\begin{aligned} \text{Emission Factor}_{\text{Precontrolled}} &= \text{Controlled EF} / (1 - \text{Control Efficiency}) \\ &= (0.0170 \text{ lb-NO}_x/\text{MMBtu}) / (1 - 0.36) \\ &= 0.027 \text{ lb-NO}_x/\text{MMBtu} \end{aligned}$$

$$\begin{aligned} PE_{\text{Precontrolled}} &= \text{Heat Rating} \times \text{Emission Factor}_{\text{Precontrolled}} \times \text{Operating Schedule} \\ &= 25 \text{ MMBtu/hr} \times 0.027 \text{ lb-NO}_x\text{/MMBtu} \times 8760 \text{ hr/yr} \\ &= 5,913 \text{ lb-NO}_x\text{/yr} \end{aligned}$$

## X. 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

By using the model general permit template listed in Section IV of this evaluation, the applicant has requested that a permit shield be issued for requirements addressed in the template. The basis for each permit shield is discussed in the Permit Shield section of each template.

## XI. PERMIT CONDITIONS

See draft operating permit beginning on the following page.

# San Joaquin Valley Air Pollution Control District

FACILITY: S-3755-0-1

EXPIRATION DATE: 02/29/2016

## 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 WESTERN MINERALS CORP.  
Location: HEAVY OIL WESTERN  
S-3755-0-1; Jul 21 2011 2:06PM - 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. On xxxxx the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days 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]
43. This facility and facility S-1114 are both in the same stationary source.

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

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-6-4

EXPIRATION DATE: 02/29/2016

SECTION: NW18 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

1500 BBL CONSTANT LEVEL FIXED-ROOF WASH TANK

## PERMIT UNIT REQUIREMENTS

---

1. Tank shall be operated at constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
2. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)] Federally Enforceable Through Title V Permit
3. VOC emissions from tank shall not exceed 0.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
5. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
6. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit

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

9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
12. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-7-3

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW18 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1001" WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

---

1. Tank shall be equipped with PV-vent set to within 10% of maximum allowable pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank roof and appurtenances, tank seams, welds, joints, piping, valves, and fittings shall be maintained gas-tight (as defined in Rule 4623). [District Rule 2201] Federally Enforceable Through Title V Permit
3. Monthly averaged daily throughput shall not exceed 500 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)] Federally Enforceable Through Title V Permit
5. Emissions from tank shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
7. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit

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

10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-8-3

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW18 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1002" WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with PV-vent set to within 10% of maximum allowable pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank roof and appurtenances, tank seams, welds, joints, piping, valves, and fittings shall be maintained gas-tight (as defined in Rule 4623). [District Rule 2201] Federally Enforceable Through Title V Permit
3. Monthly averaged daily throughput shall not exceed 500 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)] Federally Enforceable Through Title V Permit
5. Emissions from tank shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
7. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit

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



10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-9-3

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW18 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

1000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1003" WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

1. Tank shall be equipped with PV-vent set to within 10% of maximum allowable pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank roof and appurtenances, tank seams, welds, joints, piping, valves, and fittings shall be maintained gas-tight (as defined in Rule 4623). [District Rule 2201] Federally Enforceable Through Title V Permit
3. Monthly averaged daily throughput shall not exceed 500 bbl/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)] Federally Enforceable Through Title V Permit
5. Emissions from tank shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
7. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit

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

10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-10-7

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW18 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Air-assist blower shall be maintained and operated for smokeless combustion. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
3. Flare shall be equipped with produced operational gas volume flow meter. [District Rules 2201 and 4311, 5.10] Federally Enforceable Through Title V Permit
4. Flare shall be equipped with continuous pilot fired solely on propane or natural gas consisting primarily of methane containing no more than 0.75 grains of total sulfur per 100 standard cubic feet of gas and no more than 5% by weight hydrocarbons heavier than butane. [District Rules 2201 and 4311, 5.3] Federally Enforceable Through Title V Permit
5. 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
6. Pilot gas flow rate to flare shall not exceed 100 scf per hour. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. Combined produced (TEOR) gas flow rate to flare '-10 and steam generator '-11 shall not exceed 300 mscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Sulfur content of produced (TEOR) gas combusted shall not exceed 500 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
11. Emissions from this permit unit shall not exceed any of the following: PM10: 7.6 lb/MMscf; NO<sub>x</sub> (as NO<sub>2</sub>): 100 lb/MMscf; VOC: 5.5 lb/MMscf; or CO: 84 lb/MMscf. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall determine sulfur content of gas flared weekly using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans or Draeger tube analysis. Sulfur content of produced (TEOR) gas shall be measured within one day of restarting unit if the unit has not been in use for more than 7 days. [District Rules 1081 and 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. Weekly records of the produced (TEOR) gas sulfur content and daily records of produced (TEOR) gas flow rate shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
14. 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
15. 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
16. 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, which ever 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
17. 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.

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-11-6

EXPIRATION DATE: 02/29/2016

## EQUIPMENT DESCRIPTION:

20 MMBTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

## PERMIT UNIT REQUIREMENTS

1. Steam generator shall operate only in Sections 7, 18, 19, and 20 T11N R23W and Section 13 T11N R24W. [District Rule 4102] Federally Enforceable Through Title V Permit
2. Steam generator shall be fired only on produced (TEOR) gas, and PUC quality natural gas with a sulfur content of not greater than 1.0 gr/dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 1081, 2201] Federally Enforceable Through Title V Permit
4. Except during startup and shutdown emission rates shall not exceed any of the following: PM10: 0.0117 lb/MMBtu, NOx (as NO2): 15 ppmv @ 3% O2, VOC: 0.008 lb/MMBtu or CO: 154 ppmvd @ 3% O2. [District Rules 2201 & 4306, 5.1] Federally Enforceable Through Title V Permit
5. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rules 4305 and 4306, 5.3] Federally Enforceable Through Title V Permit
6. The duration of each startup and shutdown period shall not exceed 2.0 hours. [District Rules 4305 and 4306, 5.3] Federally Enforceable Through Title V Permit
7. Combined produced gas (TEOR) combusted by '-10 and '-11 shall not exceed 300 mscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Sulfur content of produced (TEOR) gas combusted shall not exceed 500 ppmvd. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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 Rule 4306, 5.4] Federally Enforceable Through Title V Permit
10. 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 Rule 4306, 5.4] 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. 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 Rule 4306, 5.4] Federally Enforceable Through Title V Permit
12. 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 Rule 4306, 5.4] Federally Enforceable Through Title V Permit
13. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 4306, 5.4] Federally Enforceable Through Title V Permit
14. 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
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306, 5.5] Federally Enforceable Through Title V Permit
17. 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, 5.5] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. 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, 6.2] Federally Enforceable Through Title V Permit
20. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306, 6.2] Federally Enforceable Through Title V Permit
21. 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, 6.2] Federally Enforceable Through Title V Permit
22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306, 5.5] Federally Enforceable Through Title V Permit
23. 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 2201, 4305, 6.3.1, and 4306, 6.3.1] Federally Enforceable Through Title V Permit
24. Permittee shall maintain records of the types (TEOR and/or PUC quality natural gas), higher heating value, and quantities of fuel gas combusted each day. [District Rule 1070] 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.

25. Except when not in use sulfur content of produced (TEOR) gas combusted shall be measured and recorded once per week using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans or Draeger tube analysis. Sulfur content of produced (TEOR) gas shall be measured within one day of restarting unit if the unit has not been in use for more than 7 days. [District Rule 2201] Federally Enforceable Through Title V Permit
26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306, 6.1] Federally Enforceable Through Title V Permit
27. The operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown. [District Rule 4306, 6.1] Federally Enforceable Through Title V Permit

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

DRAFT



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-12-12

**EXPIRATION DATE:** 02/29/2016

**SECTION:** 18 **TOWNSHIP:** 11N **RANGE:** 23W

## **EQUIPMENT DESCRIPTION:**

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

## **PERMIT UNIT REQUIREMENTS**

1. 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
2. Steam enhanced wells shall only be located in the east half of Section 13, T11N, R24W and Sections 7, 18, 19, and 20 T11N, R23W. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Steam generators S-2891-1 and S-2891-2 shall not be located in Section 7, T11N, R23W and SE Section 13, T11N, R24W. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Un-condensable vapors from steam enhanced wells located in east half of Section 13, T11N, R24W and Sections 7, 18, 19, and 20 T11N, R23W shall be incinerated at steam generators (S-2891-1, S-2891-2, S-3755-11 and S-3755-19) and/or flare (S-3755-10). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Sulfatreat vessels shall operated and maintained to achieve 95% by weight removal of sulfur compounds from TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Fugitive VOC emissions from this Casing Vapor Control System (CVCS) shall not exceed 18.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. VOC content of hydrocarbons in gas processed from steam enhanced wells located in Section 7, T11N, R23W shall not exceed 10% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
8. VOC content of hydrocarbons in gas processed from steam enhanced wells located in the east half of Section 13, T11N, R24W shall not exceed 50% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
9. VOC content of hydrocarbons in gas processed from steam enhanced wells located in Section 18, T11N, R23W shall not exceed 16% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
10. VOC content of hydrocarbons in gas processed in the Section 18 CVCS site shall not exceed 16% by weight. Permittee shall sample and record the VOC content of hydrocarbons at lease once every 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
11. VOC content of hydrocarbons in gas processed from steam enhanced wells located in Sections 19 and 20, T11N, R23W shall not exceed 10% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [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. Any component leak shall be repaired to a leak-free condition, or vented to a flare satisfying the requirements of 40 CFR 60.18, or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 4401, 6.2] Federally Enforceable Through Title V Permit
14. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request [District Rule 1070 and 4401, 6.1] Federally Enforceable Through Title V Permit
15. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
16. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 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 as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, 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
17. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 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 3 of Rule 4401. [District Rule 4401, 5.2] Federally Enforceable Through Title V Permit
18. No leaking components (as defined in Section 5.6.2 of Rule 4401) may be used unless they 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. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
19. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
20. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3] Federally Enforceable Through Title V Permit
21. Unless otherwise specified in Section 5.8, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
22. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
23. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4] 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.

24. In addition to the inspections required by Section 5.8.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
25. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, 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] Federally Enforceable Through Title V Permit
26. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
27. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4] Federally Enforceable Through Title V Permit
28. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit
29. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit
30. 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] Federally Enforceable Through Title V Permit
31. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit
32. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4. [District Rule 4401] Federally Enforceable Through Title V Permit
33. The time of the initial leak detection shall be the start of the repair period specified in Table 4. [District Rule 4401, 5.5] Federally Enforceable Through Title V Permit
34. 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] 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.

35. The following records shall be retained for a period of five years and made available for District inspection upon request. 1) The dates and well identification where steam injection occurs, 2) Monthly records of county-specific crude oil production as set forth by the California Division of Oil, Gas and Geothermal Resources, For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy this requirement, 3) All source test records which demonstrate compliance with the VOC collection and control efficiency as defined in Section 3.0, 4) All source test data conducted pursuant to Section 4.6.2 shall be submitted to the District with 60 days thereafter, 5) The operator shall maintain an Inspection Log pursuant to Section 6.4, 6) All records of each calibration of the portable hydrocarbon detection instrument shall be maintained, including a copy of the current calibration gas certification from the vendor, the date of calibration, the concentration of the calibration gas, the instrument reading of the calibration before and after adjustment, the calibration gas expiration date and the calibration gas cylinder pressure at the time of calibration, 7) Records of the facility training records shall be maintained of the training program operated pursuant to Section 6.5, 8) A copy of the APCO-approved Operator Management Plan shall be maintained. 9) A list of all gauge tanks shall be submitted to the District including the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment, 10) Records of results of all gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the District within 60 days thereafter, 11) Any operator that has discovered that a pressure regulating device has released shall record the date that the release was discovered along with the identity and location of the release. All such records shall be submitted to the District within 60 days after the end of the calendar year. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
36. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the concentration must be below 50 ppmv, in which case EPA Method 25a may be used. EPA Method 18 may be used instead, providing the requirements under Section 6.3.1 are met. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
37. VOC content shall be analyzed using the latest revision of ASTM Method E-168, E169 or E260 as applicable. Analysis of halogenated exempt compounds shall be performed using ARB Method 432. [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. For the purpose of Section 4.6.2, the VOC mass emission rate shall be determined according to the procedures described in the document USEPA-909/9-81-003, "Assessment of VOC Emissions from Well Vents Associated with Thermally Enhanced Oil Recovery". [District Rule 4401, 6.3] Federally Enforceable Through Title V Permit
40. The VOC content by weight percent shall be determined using ASTM D1945 for gasses and SCAQMD Method 304-91 or the latest revision of ASTM Method E169, E169 or E260 for liquids. [District Rule 4401, 6.3] 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.

41. The operator shall maintain an inspection log in which the operator records at least all of the following information for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
42. 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
43. The operator shall submit an Operator Management Plan for approval by the District that shall include all of the following: 1) A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule. 2) Identification and description of any known hazard that might affect the safety of an inspector, 3) Except for pipes, the number of components that are subject to this Rule by component type, 4) Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components, 5) Except for pipes, the location of components subject to this Rule, 6) Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan. 7) A detailed schedule of inspections of components to be conducted as required by this Rule and whether the operator inspections of components required by this Rule will be performed by a qualified contractor or in-house team, 8) A description of training standards for personnel that inspect and repair components, 9) A description of leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and experienced operators as necessary. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
44. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
45. The APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule. [District Rule 4401, 6.8] Federally Enforceable Through Title V Permit
46. The operator of any new steam-enhanced crude oil production well, or any nonsteam-enhanced crude oil production well converted to a steam-enhanced crude oil production well, which commences steam-enhancement operations on or after April 11, 1991, shall comply with the requirements of this rule and the applicable permit requirements of Rule 2201 (New and Modified Stationary Source Review Rule) before steam injection and no later than the first detectable flow at the casing vent. [District Rule 4401, 7.1] Federally Enforceable Through Title V Permit
47. Steam-enhanced crude oil production wells and components that are exempt pursuant to Section 4.3, 4.4, 4.5, 4.8 or 4.9 that become subject to this rule through loss of exemption status shall not be operated until such time that they are in full compliance with the requirements of this rule. [District Rule 4401, 7.2] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-16-1

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NE 20 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

200 BBL (8,400 GALLONS) FIXED ROOF CRUDE OIL/WATER STORAGE TANK WITH PV VALVE LOCATED NEAR WELL 252H-20

## PERMIT UNIT REQUIREMENTS

---

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. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emissions from this tank shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. True vapor pressure (TVP) of liquids stored, received, or held in the tank shall not exceed 0.09 psia. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)] Federally Enforceable Through Title V Permit
5. Tank fluid throughput shall be less than 175 bbl/day when averaged over a one month period. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank crude oil throughput shall be less than 50 bbl/day when averaged over a one month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2] Federally Enforceable Through Title V Permit
8. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3] 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.

9. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
10. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
11. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
12. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
13. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
15. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit

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

DRAFT

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-19-5

EXPIRATION DATE: 02/29/2016

## EQUIPMENT DESCRIPTION:

25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

1. 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
2. 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 Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
3. Approved locations for this equipment: Sections 7, 18, 19 and 20, T11N/R23W, Section 13, T11N/R24W, and Section 17, T29S, T21E. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
5. 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
6. Flue gas recirculation system shall be operated at all times when steam generator is in use. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Steam generator shall be fired only on produced (TEOR) gas and/or PUC quality natural gas with a sulfur content of not greater than 1.0 gr/dscf. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 14 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0170 lb-NO<sub>x</sub>/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.074 lb-CO/MMBtu, 0.051 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306, 5.1] Federally Enforceable Through Title V Permit
9. Sulfur content of produced (TEOR) gas combusted shall not exceed 200 ppmvd. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Produced (TEOR) gas combusted by steam generator shall not exceed 300 mscf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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 and 4306, 5.4] 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 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 performing the notification and testing required by this condition. [District Rules 4305 and 4306, 5.4] Federally Enforceable Through Title V Permit
13. 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, 5.4] Federally Enforceable Through Title V Permit
14. 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 and 4306, 5.4] Federally Enforceable Through Title V Permit
15. If the unit is fired on noncertified gaseous fuel then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Copies of fuel supplier sulfur content certification, and test results to determine compliance with the conditions of this permit shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Except for certified gaseous fuels, all fuel sources shall be tested for sulfur content within 30 days of using the fuel source as fuel in the steam generator and at least once every 12 months thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305 and 4306, 6.3] Federally Enforceable Through Title V Permit
19. 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 and 4306, 6.3] Federally Enforceable Through Title V Permit
20. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306, 5.5] Federally Enforceable Through Title V Permit
21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306, 5.5] Federally Enforceable Through Title V Permit
22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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

23. 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, 6.2] Federally Enforceable Through Title V Permit
24. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306, 6.2] Federally Enforceable Through Title V Permit
25. 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, 6.2] Federally Enforceable Through Title V Permit
26. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306, 5.5] Federally Enforceable Through Title V Permit
27. 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
28. Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this emissions unit, or any malfunction of the air pollution control equipment. [District Rule 4001 40CFR60, Subpart A] Federally Enforceable Through Title V Permit
29. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

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

DRAFT

# Attachment A

## Detailed Permit Listing

**Detailed Facility Report**  
For Facility=3755 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

SENECA WESTERN MINERALS CORP. HEAVY OIL WESTERN	FAC #	S 3755	TYPE:	TitleV	EXPIRE ON:	02/29/2016
	STATUS:	A	TOXIC ID:		AREA:	6 /
	TELEPHONE:				INSP. DATE:	01/12

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-3755-6-1	63,000 GALLONS	3020-05 D	1	185.00	185.00	A	1,500 BBL CONSTANT LEVEL FIXED-ROOF WASH TANK
S-3755-7-0	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1001" WITH PV-VENT
S-3755-8-0	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1002" WITH PV-VENT
S-3755-9-0	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1003" WITH PV-VENT
S-3755-10-4	16,700 KBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE
S-3755-11-3	20,000 KBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	20 MMBTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER
S-3755-12-10	100 STEAM ENHANCED WELLS	3020-09 A	100	9.34	934.00	A	THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H2S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)
S-3755-16-0	8,400 GALLONS	3020-05 B	1	93.00	93.00	A	200 BBL FIXED ROOF CRUDE OIL/WATER STORAGE TANK WITH PV VALVE LOCATED NEAR WELL 252H-20
S-3755-19-1	25 MMBTU/HR	3020-02 H	1	1,030.00	1,030.00	A	25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

Number of Facilities Reported: 1

# Attachment B

## Exempt Equipment

**San Joaquin Valley  
Unified Air Pollution Control District  
Title V Application - INSIGNIFICANT ACTIVITIES**

COMPANY NAME: <b>Seneca Resources</b>	FACILITY ID: <b>S - 1114</b>
---------------------------------------	------------------------------

Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	√	Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	√
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1	√	Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	√
Piston-type i.c. engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2		Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥ 0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4		Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers++	6.2		Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	√
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyorized cleaning equipment with < 10 ft <sup>2</sup> open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	√
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	
Containers used to store clean produced water	6.6.1	√	Fugitive emissions sources assoc. with exempt equipment	6.12	√
Containers ≤ 100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	√
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store organic material where the actual storage temperature < 150 F	6.6.4		Emissions less than 2 lb/day from units not included above	6.19	
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	√
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥ 0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	√
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)

# Attachment C

## Current District PTOs



# Permit to Operate

**FACILITY:** S-3755

**EXPIRATION DATE:** 02/29/2016

**LEGAL OWNER OR OPERATOR:**  
**MAILING ADDRESS:**

SENECA WESTERN MINERALS CORP.  
2131 MARS CT  
BAKERSFIELD, CA 93308

**FACILITY LOCATION:**

HEAVY OIL WESTERN

**FACILITY DESCRIPTION:**

OIL AND GAS PRODUCTION

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

**Seyed Sadredin**  
Executive Director / APCO

**David Warner**  
Director of Permit Services



# San Joaquin Valley Air Pollution Control District

**FACILITY:** S-3755-0-0

**EXPIRATION DATE:** 02/29/2016

## **FACILITY-WIDE REQUIREMENTS**

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. This facility and facility S-1114 are both in the same stationary source.

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 WESTERN MINERALS CORP.

Location: HEAVY OIL WESTERN

S-3755-0-0; Jul 21 2011 10:52AM - GONZALEV

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-6-1

EXPIRATION DATE: 02/29/2016

SECTION: NW18 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

1,500 BBL CONSTANT LEVEL FIXED-ROOF WASH TANK

## PERMIT UNIT REQUIREMENTS

---

1. Tank shall be operated at constant level. [District Rule 2201]
2. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)]
3. VOC emissions from tank shall not exceed 0.3 lb/day. [District Rule 2201]
4. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2]
5. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3]
6. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
7. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
8. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
9. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
11. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
12. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-7-0

EXPIRATION DATE: 02/29/2016

SECTION: NW18 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1001" WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

---

1. Tank shall be equipped with PV-vent set to within 10% of maximum allowable pressure. [District Rule 2201]
2. Tank roof and appurtenances, tank seams, welds, joints, piping, valves, and fittings shall be maintained gas-tight (as defined in Rule 4623). [District Rule 2201]
3. Monthly averaged daily throughput shall not exceed 500 bbl/day. [District Rule 2201]
4. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)]
5. Emissions from tank shall not exceed 4.3 lb/day. [District Rule 2201]
6. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2]
7. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3]
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-8-0

EXPIRATION DATE: 02/29/2016

SECTION: NW18 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1002" WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

---

1. Tank shall be equipped with PV-vent set to within 10% of maximum allowable pressure. [District Rule 2201]
2. Tank roof and appurtenances, tank seams, welds, joints, piping, valves, and fittings shall be maintained gas-tight (as defined in Rule 4623). [District Rule 2201]
3. Monthly averaged daily throughput shall not exceed 500 bbl/day. [District Rule 2201]
4. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)]
5. Emissions from tank shall not exceed 4.3 lb/day. [District Rule 2201]
6. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2]
7. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3]
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3755-9-0

EXPIRATION DATE: 02/29/2016

SECTION: NW18 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK "SMS 1003" WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

---

1. Tank shall be equipped with PV-vent set to within 10% of maximum allowable pressure. [District Rule 2201]
2. Tank roof and appurtenances, tank seams, welds, joints, piping, valves, and fittings shall be maintained gas-tight (as defined in Rule 4623). [District Rule 2201]
3. Monthly averaged daily throughput shall not exceed 500 bbl/day. [District Rule 2201]
4. True vapor pressure of any liquid introduced in this permit unit shall not exceed 0.48 psia at (or before) tank liquid inlet and at storage temperature. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)]
5. Emissions from tank shall not exceed 4.3 lb/day. [District Rule 2201]
6. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2]
7. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3]
8. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
9. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
10. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]

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



11. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
12. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
13. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-10-4

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW18 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

16.5 MMBTU/HR AIR ASSISTED PRODUCED GAS FLARE

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 2201]
2. Air-assist blower shall be maintained and operated for smokeless combustion. [District Rules 2201 and 4101]
3. Flare shall be equipped with produced operational gas volume flow meter. [District Rule 2201]
4. Flare shall be equipped with continuous pilot fired solely on propane or natural gas consisting primarily of methane containing no more than 0.75 grains of total sulfur per 100 standard cubic feet of gas and no more than 5% by weight hydrocarbons heavier than butane. [District Rules 2201 and 4311]
5. 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]
6. Pilot gas flow rate to flare shall not exceed 100 scf per hour. [District Rule 2201]
7. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311]
8. 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]
9. Combined produced (TEOR) gas flow rate to flare '-10 and steam generator '-11 shall not exceed 300 mscf/day. [District Rule 2201]
10. Sulfur content of produced (TEOR) gas combusted shall not exceed 500 ppmv. [District Rules 2201 and 4801]
11. Emissions from this permit unit shall not exceed any of the following: PM10: 7.6 lb/MMscf; NOx (as NO2): 100 lb/MMscf; VOC: 5.5 lb/MMscf; or CO: 84 lb/MMscf. [District Rule 2201]
12. Permittee shall determine sulfur content of gas flared weekly using ASTM method D3246 or double GC for H2S and mercaptans or Draeger tube analysis. Sulfur content of produced (TEOR) gas shall be measured within one day of restarting unit if the unit has not been in use for more than 7 days. [District Rules 1081 and 2201]
13. Weekly records of the produced (TEOR) gas sulfur content and daily records of produced (TEOR) gas flow rate shall be maintained. [District Rule 2201]
14. 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]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-11-3

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

20 MMBTU/HR TEOR GAS AND NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME LE MODEL 4211-21/X1288 LOW NOX BURNER

## PERMIT UNIT REQUIREMENTS

---

1. Steam generator shall operate only in Sections 7, 18, 19, and 20 T11N R23W and Section 13 T11N R24W. [District Rule 4102]
2. Steam generator shall be fired only on produced (TEOR) gas, and PUC quality natural gas with a sulfur content of not greater than 1.0 gr/dscf. [District Rule 2201]
3. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 1081, 2201]
4. Except during startup and shutdown emission rates shall not exceed any of the following: PM10: 0.0117 lb/MMBtu, NOx (as NO2): 15 ppmv @ 3% O2, VOC: 0.008 lb/MMBtu or CO: 154 ppmvd @ 3% O2. [District Rules 2201 & 4306]
5. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rules 4305 and 4306]
6. The duration of each startup and shutdown period shall not exceed 2.0 hours. [District Rules 4305 and 4306]
7. Combined produced gas (TEOR) combusted by '-10 and '-11 shall not exceed 300 mscf/day. [District Rule 2201]
8. Sulfur content of produced (TEOR) gas combusted shall not exceed 500 ppmvd. [District Rule 2201]
9. 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 Rule 4306]
10. 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 Rule 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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 Rule 4306]
12. 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 Rule 4306]
13. The portable analyzer shall be calibrated prior to each use with a two-point calibration method (zero and span). Calibration shall be performed with certified calibration gases. [District Rule 4306]
14. Source testing shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
16. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
17. 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]
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. 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]
20. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
21. 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]
22. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
23. 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 2201, 4305, 6.3.1, and 4306, 6.3.1]
24. If permittee fails any compliance demonstration for NO<sub>x</sub> and CO emissions when testing not less than once every 36 months, source testing for NO<sub>x</sub> and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.4.2 and 4305]
25. Permittee shall maintain records of the types (TEOR and/or PUC quality natural gas), higher heating value, and quantities of fuel gas combusted each day. [District Rule 1070]

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

26. Except when not in use sulfur content of produced (TEOR) gas combusted shall be measured and recorded once per week using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans or Draeger tube analysis. Sulfur content of produced (TEOR) gas shall be measured within one day of restarting unit if the unit has not been in use for more than 7 days. [District Rule 2201]
27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-12-11

**EXPIRATION DATE:** 02/29/2016

**SECTION:** 18 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WITH 100 CYCLIC WELLS SERVED BY A CASING VENT VAPOR CONTROL SYSTEM WITH LIQUID KNOCKOUT(S), HEAT EXCHANGER(S), H<sub>2</sub>S SULFA TREAT CONTACTOR VESSEL(S), AND COMPRESSOR(S)

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
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]
4. Steam enhanced wells shall only be located in the east half of Section 13, T11N, R24W and Sections 7, 18, 19, and 20 T11N, R23W. [District Rule 2201]
5. Steam generators S-2891-1 and S-2891-2 shall not be located in Section 7, T11N, R23W and SE Section 13, T11N, R24W. [District Rule 2201]
6. Un-condensable vapors from steam enhanced wells located in east half of Section 13, T11N, R24W and Sections 7, 18, 19, and 20 T11N, R23W shall be incinerated at steam generators (S-2891-1, S-2891-2, S-3755-11 and S-3755-19) and/or flare (S-3755-10). [District Rule 2201]
7. Sulfatreat vessels shall operated and maintained to achieve 95% by weight removal of sulfur compounds from TEOR gas. [District Rule 2201]
8. Fugitive VOC emissions from this Casing Vapor Control System (CVCS) shall not exceed 18.3 lb/day. [District Rule 2201]
9. VOC content of hydrocarbons in gas processed from steam enhanced wells located in Section 7, T11N, R23W shall not exceed 10% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201]
10. VOC content of hydrocarbons in gas processed from steam enhanced wells located in the east half of Section 13, T11N, R24W shall not exceed 50% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201]
11. VOC content of hydrocarbons in gas processed from steam enhanced wells located in Section 18, T11N, R23W shall not exceed 16% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201]
12. VOC content of hydrocarbons in gas processed in the Section 18 CVCS site shall not exceed 16% by weight. Permittee shall sample and record the VOC content of hydrocarbons at lease once every 12 months. [District Rules 1070 and 2201]

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

13. VOC content of hydrocarbons in gas processed from steam enhanced wells located in Sections 19 and 20, T11N, R23W shall not exceed 10% by weight. Permittee shall sample and record the VOC content of hydrocarbons at least once every 12 months. [District Rules 1070 and 2201]
14. VOC content of gas shall be determined by ASTM D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
15. All components containing VOCs, including collected liquids, shall be inspected by the facility operator annually to ensure compliance with the provisions of this permit. The inspections shall be conducted in accordance with EPA Method 21, and with the instruments calibrated with methane. If two (2) percent or more of the qualifying components are found to leak during an annual inspection, the inspection frequency for that type of component shall be changed from annually to quarterly. If less than two (2) percent of the qualifying components are subsequently found to be leaking during five (5) consecutive quarterly inspections, the inspection frequency for that type of component may be changed from quarterly to annually. [District Rule 2201 and 4401]
16. Components that are located in inaccessible locations or in areas which cause inspection to be unsafe for personnel shall be identified in the operator management plan approved by the APCO. Components located in unsafe areas shall be inspected and repaired at the next process unit turnaround and inaccessible components shall be inspected at least annually. [District Rule 2201 and 4401]
17. Any component leak shall be repaired to a leak-free condition, or vented to a flare satisfying the requirements of 40 CFR 60.18, or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates necessary and sufficient actions are being taken to correct the leak within this time period. [District Rule 4401]
18. Each operator shall maintain an inspection log containing at a minimum the following: 1) name, location, type of components, and description of any unit where leaking components are found; 2) date of leak detection, emission level (ppm) of leak, and method of detection; date and emission level of recheck after leak is repaired; 3) total number of components inspected, and total number and percentage of leaking components found. [District Rule 4401]
19. A current and complete listing of all steam enhanced wells connected to this system shall be maintained with the Permit to Operate. [District Rule 4401]
20. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using U.S. EPA publication 453/R-95-017, Table 2-4. [District Rule 4401]
21. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request [District Rule 1070 and 4401]
22. An operator shall not operate a steam-enhanced crude oil production well unless either of the following two conditions are met: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids is connected to a VOC collection and control system as defined in Section 3.0 of this Rule or 2) the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0. [District Rule 4401]
23. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 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 as defined by Section 5.6.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401]
24. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.8 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 3 of Rule 4401. [District Rule 4401]

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

25. No leaking components (as defined in Section 5.6.2 of Rule 4401) may be used unless they have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 [District Rule 4401]
26. Each hatch shall be closed at all times except during attended repair, replacement, or maintenance operations, providing such activities are done as expeditiously as possible with minimal spillage or material and VOC emissions into the atmosphere. [District Rule 4401]
27. The operator shall comply with the requirements of Section 6.7 if there is any change in the description of major components or critical components. [District Rule 4401]
28. Unless otherwise specified in Section 5.8, an operator shall perform all component inspections and gas leak measurements pursuant to the requirements of Section 6.3.3 [District Rule 4401]
29. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year. [District Rule 4401]
30. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401]
31. In addition to the inspections required by Section 5.8.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: 1) An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. 2) Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of this Rule. [District Rule 4401]
32. The operator shall also perform the following inspections: 1) An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. 2) An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service, and 3) Except for PRDs subject to the requirements of Section 5.8.4.1 of this Rule, 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]
33. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401]
34. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401]
35. Upon detection of a leak, an operator shall affix a readily visible weatherproof tag to that leaking component that includes the following information: 1) The date and time of leak detection; 2) The date and time of the leak measurement; 3) For a gaseous leak, the leak concentration in ppmv; 4) For a liquid leak, whether it is a major or minor liquid leak; and 5) Whether the component is an essential component, and unsafe-to-monitor component, or a critical component. [District Rule 4401]
36. The tag shall remain affixed to the leaky component until all the following requirements are met: 1) The component is repaired or replaced, 2) The component is re-inspected as set forth in Section 6.3, and 3) The component is found to be in compliance with this Rule. [District Rule 4401]
37. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



38. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the following three requirements as soon as practicable but not later than the time period specified in Table 4: 1) Repair or replace the leaking component, 2) Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or 3) Remove the leaking component from operation. [District Rule 4401]
39. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 4. [District Rule 4401]
40. The time of the initial leak detection shall be the start of the repair period specified in Table 4. [District Rule 4401]
41. 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]
42. The following records shall be retained for a period of five years and made available for District inspection upon request. 1) The dates and well identification where steam injection occurs, 2) Monthly records of county-specific crude oil production as set forth by the California Division of Oil, Gas and Geothermal Resources, For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy this requirement, 3) All source test records which demonstrate compliance with the VOC collection and control efficiency as defined in Section 3.0, 4) All source test data conducted pursuant to Section 4.6.2 shall be submitted to the District with 60 days thereafter, 5) The operator shall maintain an Inspection Log pursuant to Section 6.4, 6) All records of each calibration of the portable hydrocarbon detection instrument shall be maintained, including a copy of the current calibration gas certification from the vendor, the date of calibration, the concentration of the calibration gas, the instrument reading of the calibration before and after adjustment, the calibration gas expiration date and the calibration gas cylinder pressure at the time of calibration, 7) Records of the facility training records shall be maintained of the training program operated pursuant to Section 6.5, 8) A copy of the APCO-approved Operator Management Plan shall be maintained. 9) A list of all gauge tanks shall be submitted to the District including the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment, 10) Records of results of all gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the District within 60 days thereafter, 11) Any operator that has discovered that a pressure regulating device has released shall record the date that the release was discovered along with the identity and location of the release. All such records shall be submitted to the District within 60 days after the end of the calendar year. [District Rule 4401]
43. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the concentration must be below 50 ppmv, in which case EPA Method 25a may be used. EPA Method 18 may be used instead, providing the requirements under Section 6.3.1 are met. [District Rule 4401]
44. VOC content shall be analyzed using the latest revision of ASTM Method E-168, E169 or E260 as applicable. Analysis of halogenated exempt compounds shall be performed using ARB Method 432. [District Rule 4401]
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]
46. For the purpose of Section 4.6.2, the VOC mass emission rate shall be determined according to the procedures described in the document USEPA-909/9-81-003, "Assessment of VOC Emissions from Well Vents Associated with Thermally Enhanced Oil Recovery". [District Rule 4401]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

47. The VOC content by weight percent shall be determined using ASTM D1945 for gasses and SCAQMD Method 304-91 or the latest revision of ASTM Method E169, E169 or E260 for liquids. [District Rule 4401]
48. The operator shall maintain an inspection log in which the operator records at least all of the following information for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type, 2) The location, type and name or description of each leaking component and description of any unit where the leaking component is found, 3) The date of leak detection and the method of leak detection, 4) For gaseous leaks, the leak concentration in ppmv and, for liquids leaks, whether the leak is major or minor, 5) The date of repair, replacement or removal from operation of leaking components, 6) The identity and location of essential components and critical components as defined in this Rule, found leaking, that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than 1 year after detection, whichever comes earlier, 8) The date or re-inspection and the leak concentration in ppmv after the component is repaired or replaced, 9) The inspectors name, business mailing address, and business telephone number, and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401]
49. The operator shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures as necessary. [District Rule 4401]
50. The operator shall submit an Operator Management Plan for approval by the District that shall include all of the following: 1) A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule. 2) Identification and description of any known hazard that might affect the safety of an inspector, 3) Except for pipes, the number of components that are subject to this Rule by component type, 4) Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components, 5) Except for pipes, the location of components subject to this Rule, 6) Except for pipes, components exempt pursuant to Section 4.8 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being claimed pursuant to Sections 4.8 shall be submitted with the Operator Management Plan. 7) A detailed schedule of inspections of components to be conducted as required by this Rule and whether the operator inspections of components required by this Rule will be performed by a qualified contractor or in-house team, 8) A description of training standards for personnel that inspect and repair components, 9) A description of leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and experienced operators as necessary. [District Rule 4401]
51. By January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan. [District Rule 4401]
52. The APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule. [District Rule 4401]
53. The operator of any new steam-enhanced crude oil production well, or any nonsteam-enhanced crude oil production well converted to a steam-enhanced crude oil production well, which commences steam-enhancement operations on or after April 11, 1991, shall comply with the requirements of this rule and the applicable permit requirements of Rule 2201 (New and Modified Stationary Source Review Rule) before steam injection and no later than the first detectable flow at the casing vent. [District Rule 4401]
54. Steam-enhanced crude oil production wells and components that are exempt pursuant to Section 4.3, 4.4, 4.5, 4.8 or 4.9 that become subject to this rule through loss of exemption status shall not be operated until such time that they are in full compliance with the requirements of this rule. [District Rule 4401]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

55. This facility and facility S-1114 are both in the same stationary source.

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-16-0

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NE 20 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

200 BBL FIXED ROOF CRUDE OIL/WATER STORAGE TANK WITH PV VALVE LOCATED NEAR WELL 252H-20

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District NSR Rule]
3. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
4. VOC emissions from this tank shall not exceed 1.9 lb/day. [District Rule 2201]
5. True vapor pressure (TVP) of liquids stored, received, or held in the tank shall not exceed 0.09 psia. [District Rules 2201, 4623, 4.4, and 40 CFR 60.110(b)]
6. Tank fluid throughput shall be less than 175 bbl/day when averaged over a one month period. [District Rule 2201]
7. Tank crude oil throughput shall be less than 50 bbl/day when averaged over a one month period. [District Rule 2201]
8. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the following criteria are met: (1) The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test; (2) One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery; (3) The stored organic liquid in each of the represented tanks is the same and came from the same source; and (4) The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent. [District Rule 4623, 6.2]
9. For crude oil with an API gravity greater than 26 degrees, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323 (Test Method for Vapor Pressure for Petroleum Products), and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the procedures in District Rule 4623, Appendix B. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and US EPA. [District Rule 4623, 6.4.3]
10. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
11. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]

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

12. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
13. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
14. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
15. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
16. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-3755-19-1

**EXPIRATION DATE:** 02/29/2016

**EQUIPMENT DESCRIPTION:**

25 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH ACT GUIDEON MGW-25 LOW NOX BURNER AND INDUCED FLUE GAS RECIRCULATION OPERATED AT VARIOUS SPECIFIED LOCATIONS WITHIN THE STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
3. 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 Rule 4301, 5.1 and 5.2.3]
4. Approved locations for this equipment: Sections 7, 18, 19 and 20, T11N/R23W, Section 13, T11N/R24W, and Section 17, T29S, T21E. [District Rule 2201]
5. Unit shall not be located within 1000 feet of any K-12 school. [CH&SC 42301.6]
6. Permittee shall notify the District Compliance Division to arrange a start-up inspection at the initial location of the unit. [District Rule 1070]
7. 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]
8. Flue gas recirculation system shall be operated at all times when steam generator is in use. [District Rule 2201]
9. Steam generator shall be fired only on produced (TEOR) gas and/or PUC quality natural gas with a sulfur content of not greater than 1.0 gr/dscf. [District Rule 2201]
10. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 14 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0170 lb-NO<sub>x</sub>/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.074 lb-CO/MMBtu, 0.051 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201, 4305, and 4306]
11. Sulfur content of produced (TEOR) gas combusted shall not exceed 200 ppmvd. [District Rule 2201]
12. Produced (TEOR) gas combusted by steam generator shall not exceed 300 mscf/day. [District Rule 2201]
13. 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 and 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. 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 performing the notification and testing required by this condition. [District Rules 4305 and 4306]
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
16. 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 and 4306]
17. If the unit is fired on noncertified gaseous fuel then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2201]
18. Copies of fuel supplier sulfur content certification, and test results to determine compliance with the conditions of this permit shall be maintained. [District Rule 2201]
19. Except for certified gaseous fuels, all fuel sources shall be tested for sulfur content within 30 days of using the fuel source as fuel in the steam generator and at least once every 12 months thereafter. [District Rule 2201]
20. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305 and 4306]
21. 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 and 4306]
22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
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]
25. 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]
26. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. 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]
28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
30. The permittee shall notify the District of date of initiation of construction no later than 30 days after such date, date of anticipated startup not more than 60 days nor less than 30 days prior to such date, and date of actual startup within 15 days after such date. [District Rule 4001, 40CFR60 Subpart A]
31. Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this emissions unit, or any malfunction of the air pollution control equipment. [District Rule 4001 40CFR60, Subpart A]
32. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306]

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