



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

SEP 28 2012

Jerry Frost  
Vintage Production California, LLC  
9600 Ming Ave  
Bakersfield, CA 93311

**Re: Notice of Preliminary Decision - Federally Mandated Operating Permit  
District Facility # S-1327  
Project # 1112521**

Dear Mr. Frost:

Enclosed for your review and comment is the District's analysis of Vintage Production California, LLC's application for the Federally Mandated Operating Permit for its crude oil production operation in their Western Kern County Fields Heavy Oil stationary source, 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

A handwritten signature in black ink, appearing to read "David Warner", with a long horizontal flourish extending to the right.

David Warner  
Director of Permit Services

cc: David Torii, Permit Services Engineer

Attachments

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

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



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

SEP 28 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-1327  
Project # 1112521**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Vintage Production California, LLC's application for the Federally Mandated Operating Permit for its crude oil production operation in their Western Kern County Fields Heavy Oil stationary source, 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

A handwritten signature in black ink, appearing to read "David Warner", with a long horizontal flourish extending to the right.

David Warner  
Director of Permit Services

cc: David Torii, Permit Services Engineer

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**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

**SEP 28 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-1327  
Project # 1112521**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Vintage Production California, LLC's application for the Federally Mandated Operating Permit for its crude oil production operation in their Western Kern County Fields Heavy Oil stationary source, 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner  
Director of Permit Services

cc: David Torii, Permit Services Engineer

Attachments

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

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 Vintage Production California, LLC for its crude oil production operation in their Western Kern County Fields Heavy Oil stationary source, California.

The District's analysis of the legal and factual basis for this proposed action, project #1112521, 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500. 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, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.

**SANJOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**

**TITLE V APPLICATION REVIEW  
Vintage Production California, LLC  
FACILITY # S-1327**

**TABLE OF CONTENTS**

I. PROPOSAL..... 1

II. FACILITY LOCATION ..... 1

III. EQUIPMENT LISTING ..... 1

IV. GENERAL PERMIT TEMPLATE USAGE..... 2

V. SCOPE OF EPA AND PUBLIC REVIEW ..... 2

VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES..... 2

VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES ..... 2

VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE ..... 4

IX. COMPLIANCE..... 4

X. PERMIT SHIELD ..... 38

XI. PERMIT CONDITIONS..... 39

ATTACHMENT A (EQUIPMENT LISTING) ..... A-1

ATTACHMENT B (EXEMPT EQUIPMENT LISTING AND ACTIVITIES LISTING)..... B-1

ATTACHMENT C (CURRENT DISTRICT PTOS & ATCS) ..... C-1

ATTACHMENT D (CURRENT DISTRICT RULE SIP COMPARISON) ..... D-1

ATTACHMENT E (FACILITY COMMENTS / DISTRICT RESPONSES) ..... E-1

# **Title V Application Review**

## **Heavy Oil Production**

Project #: 1112521, Deemed Complete: 6/20/11

Engineer: David Torii  
Lead Engineer: Allan Phillips  
Date:

Facility Number: S-1327  
Facility Name: Vintage Production California, LLC  
Mailing Address: 9600 Ming Ave  
Bakersfield, CA 93311

Contact Name: William J. Hill  
Phone: (661) 869-8000

Responsible Official: William J. Hill  
Title: Operations Manager

### **I. PROPOSAL**

Vintage Production California, LLC (Vintage) is proposing that the initial Title V Operating Permit be issued for its existing heavy oil production source located in Kern County. The purpose of this engineering 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.

Please note facilities S-1327 and S-6848 are part of the same stationary source. The initial Title V permit for facility S-6848 is being addressed separately.

### **II. FACILITY LOCATION**

This heavy oil production source is located west of Interstate 5 in Kern County, California.

### **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 not requesting to use the any model general permit templates:

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

Since applicant is not requested to use any model general permit templates, the proposed permit in it's entirety is subject to EPA and public review.

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

The applicant has not proposed to utilize any model general permit templates. All applicable requirements are explicitly addressed in the permit outside of the general permit templates.

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

##### District New and Modified Stationary Source Review Rule

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

District Rule 1081, Source Sampling (as amended December 16, 1993)

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

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

District Rule 2020, Exemptions (as amended December 20, 2007)

District Rule 2031, Transfer Of Permits (as amended December 17, 1992)

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

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

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

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

District Rule 4101, Visible Emissions (as amended December 17, 2005)

Vintage  
Facility #: S-1327  
Project #: 1112521

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

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

District Rule 4305, Boilers, Steam Generators, and Process Heaters – Phase 2 (as amended August 21, 2003)

District Rule 4306, Boilers, Steam Generators, and Process Heaters – Phase 3 (as amended October 16, 2008)

District Rule 4311, Flares (as amended June 19, 2009)

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

District Rule 4401 Steam-Enhanced Crude Oil Production Well Vents (as amended December 14, 2006)

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

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

District Rule 4801, Sulfur Compounds (as amended December 17, 1992) (Non SIP replacement for Kern County Rule 407)

District Rules 8021, 8031, 8041, 8051, and 8061, Fugitive Dust (PM<sub>10</sub>) Emissions (as amended August 19, 2004)

District Rule 8071, Fugitive Dust (PM<sub>10</sub>) Emissions (as amended September 16, 2004)

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants (NESHAPS) for Stationary Reciprocating Internal Combustion Engines (amended January 18, 2008)

40 CFR 61, Subpart M - Asbestos

40 CFR 82, Subpart F - Stratospheric Ozone

40 CFR Part 64 - Compliance Assurance Monitoring



40 CFR Part 68 - Chemical Accident Prevention Provisions

## VIII. 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 Permit. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through the Title V Permit".

The facility is subject to the following District rules which are not currently Federally Enforceable:

1. District Rule 4102 - Nuisance

For this facility, condition 41 of the facility wide requirements are based on the rules identified above and are not Federally Enforceable Through the Title V Permit.

2. District Rule 4311, Section 6.5 (as amended June 15, 2009)

The section 6.5 of the current version of Rule 4311 addresses the requirements for flare minimization plan. This section of the latest version of District Rule 4311 has not been SIP approved. In addition, the deadline to meet compliance with the requirements of this rule has not yet passed. Therefore, the flare permit unit S-1327-9-7 in this project is not currently subject to the requirements of this section of the rule, and will not be addressed in this evaluation

## IX. COMPLIANCE

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

The applicant has chosen to not use any general permit templates; therefore, no requirements are addressed by model general permit templates.

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

The applicant has not proposed to utilize any model general permit templates. All applicable requirements are explicitly addressed in the permit outside of the general permit templates

1. **New and Modified Stationary Source Review Rule (District NSR Rule)**

Vintage  
Facility #: S-1327  
Project #: 1112521

a. Steam Generator (S-1327-32-3)

Permit unit S-1327-32-3 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 6, 7 and 12 from the PTO were included as conditions 5, 6 and 11 of the requirements for this permit unit.

b. Steam Generator (S-1327-34-7)

Permit unit S-1327-34-7 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 10, 11 and 12 from the PTO were included as conditions 10, 11 and 12 of the requirements for this permit unit.

c. Steam Generator (S-1327-35-3)

Permit unit S-1327-35-3 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 4 through 6, 8, 9 and 10, 13 and 25 from the PTO were included as conditions 3 through 5, 7, 8 and 9, 12 and 24 of the requirements for this permit unit.

d. TEOR Operation (S-1327-42-9)

Permit unit S-1327-42-9 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 5 through 8 and 10 through 19 from the PTO were included as conditions 4 through 7 and 9 through 18, respectively, of the requirements for this permit unit.

e. Storage Tank (S-1327-58-0, '59-0, '60-0 and '83-0)

Permit units S-1327-58-0, '59-0 and '60-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 3 and 4 from the PTOs was included as conditions 1 and 2, respectively, of the requirements for these permit units.

Vintage  
Facility #: S-1327  
Project #: 1112521

f. Storage Tank (S-1327-80-0 and '81-0)

Permit units S-1327-80-0 and '81-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 3, 4 and 10 from the PTOs was included as conditions 1, 2 and 8, respectively, of the requirements for these permit units.

g. Storage Tank (S-1327-82-0)

Permit units S-1327-82-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 3, 4 and 11 from the PTO were included as conditions 1, 2 and 9, respectively, of the requirements for these permit units.

h. Storage Tank (S-1327-84 -0, '85-0 and '86-0)

Permit unit S-1327-84 -0, '85-0 and '86-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs is not necessary and was deleted.
- Condition 2 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 3, 4 and 11 from the PTOs were included as conditions 1,2 and 9, respectively, of the requirements for these permit units.

i. Storage Tank (S-1327-87 -0, '88-0, '89-0 and '90-0)

Permit unit S-1327-87 -0, '88-0, '89-0 and '90-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 2 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 1 from the PTOs was included as condition 1 of the requirements for these permit units.

j. Storage Tank (S-1327-91-0)

Permit unit S-1327-91-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

Vintage  
Facility #: S-1327  
Project #: 1112521

- Condition 3 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 1 and 2 from the PTO were included as conditions 1 and 2 of the requirements for this permit unit.

k. Storage Tank (S-1327-92-0)

Permit unit S-1327-92-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 3 through 11 from the PTO were included as conditions 2 through 10 of the requirements for this permit unit.
- A reference to Rule 2201 was added to condition 3 of the requirements for this permit unit as this permit's TVP was increased in project S1070932.

l. Storage Tank (S-1327-102-0 and 103-0)

Permit units S-1327-102-0 and 103-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 3 through 6 from the PTO were included as conditions 2 through 5 of the requirements for this permit unit.

m. Storage Tank (S-1327-104-0, '106-0 and '108-0)

Permit units S-1327-104-0, '106-0 and '108-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Condition 2 from the PTOs is not necessary for these tanks and therefore was not included on the requirements for these permit units.

Vintage  
Facility #: S-1327  
Project #: 1112521

- Conditions 3 through 9 from the PTOs were included as conditions 1 through 7 of the requirements for these permit units.

n. Storage Tank (S-1327-107-0)

Permit unit S-1327-107-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 7 through 9 from the PTO were included as conditions 6 through 8 of the requirements for this permit unit.

o. Storage Tank (S-1327-109-0)

Permit unit S-1327-109-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 2 and 3 from the PTO were included as conditions 2 and 3 of the requirements for this permit unit.

p. TEOR Operation (S-1327-42-9)

Permit unit S-1327-42-9 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 1 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 5 through 8 and 10 through 19 from the PTO were included as conditions 4 through 7 and 9 through 18, respectively, of the requirements for this permit unit.

q. TEOR Operation (S-1327-70-0)

Permit unit S-1327-70-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 1 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.

Vintage  
Facility #: S-1327  
Project #: 1112521

- Conditions 2, 4 through 7, 9 through 13, 15 and 16 from the PTO were included as conditions 1, 3 through 6, 8 through 12, 14 and 15, respectively, of the requirements for this permit unit.

r. TEOR Operation (S-1327-83-0)

Permit unit S-1327-83-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTO was not needed and therefore deleted.
- Condition 2 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 5 through 10 from the PTO were included as conditions 3 through 8 of the requirements for this permit unit.
- Condition 13 from the PTO was included as condition 13 of the requirements for this permit unit.

s. TEOR Operation (S-1327-110-1)

Permit unit S-1327-110-1 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 2 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 3 through 11 from the PTO were included as conditions 3 through 9 of the requirements for this permit unit.

t. Storage Tank (S-1327-111-0)

Permit units S-1327-111-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 2 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 1 and 3 through 6 from the PTO were included as conditions 1 through 5 of the requirements for this permit unit.

u. Storage Tank (S-1327-112-0)

Permit unit S-1327-112-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 11 from the PTO were included as conditions 1 through 10 of the requirements for this permit unit.

v. Storage Tank (S-1327-113-0)

Permit unit S-1327-113-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 12 from the PTO were included as conditions 1 through 10 of the requirements for this permit unit.

w. Storage Tank (S-1327-114-0)

Permit unit S-1327-114-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 3 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2, 4 and 6 from the PTO were included as conditions 2, 4 and 6 of the requirements for this permit unit.

x. Storage Tank (S-1327-115-0)

Permit unit S-1327-115-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 13 from the PTO were included as conditions 1 through 12 of the requirements for this permit unit.

y. Steam generator (S-1327-116-0)

Permit unit S-1327-116-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 4 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 5 through 9 from the PTO were included as conditions 4 through 8 of the requirements for this permit unit.

z. Storage Tank (S-1327-117-0 and '118-0)

Permit units S-1327-117-0 and '118 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 13 from the PTO were included as conditions 1 through 12 of the requirements for this permit unit.

aa. Storage Tank (S-1327-119-0)

Permit unit S-1327-119-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 12 from the PTO were included as conditions 1 through 11 of the requirements for this permit unit.

bb. Steam generator (S-1327-120-0)

Permit unit S-1327-120-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 5 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.



Vintage  
Facility #: S-1327  
Project #: 1112521

- Conditions 1 through 4, 8, 9, 31, 32 and '40 from the PTO were included as conditions 1 through 4, 7, 8, 30, '31 and '39 of the requirements for this permit unit.

cc. Storage Tank (S-1327-121-0)

Permit unit S-1327-121-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 2 through 4 from the PTO were included as conditions 2 through 4 of the requirements for this permit unit.

dd. Storage Tank (S-1327-122-0 and '123-0)

Permit unit S-1327-122-0 and '123-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 2 and 3 from the PTO were included as conditions 2 and 3 of the requirements for this permit unit.

ee. Storage Tank (S-1327-124-0)

Permit unit S-1327-124-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 13 from the PTO were included as conditions 1 through 12 of the requirements for this permit unit.

ff. Storage Tank (S-1327-125-0)

Permit unit S-1327-125-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 12 from the PTO were included as conditions 1 through 11 of the requirements for this permit unit.

gg. Storage Tank (S-1327-126-0)

Permit unit S-1327-126-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2 through 5 and 8 through 25 from the PTO were included as conditions 1 through 4 and 7 through 24 of the requirements for this permit unit.

hh. Storage Tank (S-1327-127-0, '128-0, '129-0 and '146-0)

Permit units S-1327-127-0, '128-0, '129-0 and '146-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Condition 2 and 4 through 11 from the PTO were included as conditions 1 and 3 through 10 of the requirements for this permit unit.

ii. Steam generator (S-1327-130-0, '131-0, '133-0, '134-0, '135-0 and '136-0)

Permit units S-1327-130-0, '131-0, '132-0, '133-0, '134-0, '135-0 and '136-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 4 through 19, 21 through 24 and 26 from the PTO were included as conditions 3 through 18, 20 through 23 and 25 of the requirements for this permit unit.

jj. Steam generator (S-1327-132-0)

Permit units S-1327-132-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

Vintage  
Facility #: S-1327  
Project #: 1112521

- Condition 1 from the PTO was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 4 through 19, 21 through 26 and 28 and 29 from the PTO were included as conditions 3 through 18, 20 through 26, 27 and 28 of the requirements for this permit unit.

kk. Steam generator (S-1327-137-0 and '138-0)

Permit units S-1327-137-0 and '138-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 5 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 1, 3, 4, 8, 9, 19, 20, 21 and 28 from the PTO were included as conditions 1, 3, 4, 7, 8, 18, 19, 20 and 27 of the requirements for this permit unit.

ll. Steam generator (S-1327-155-2)

Permit unit S-1327-155-2 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 4 through 6, 8 through 19, 21 through 24, 26 and 27 from the PTO were included as conditions 3 through 5, 7 through 18, 20 through 23, 25 and 26 of the requirements for this permit unit.

mm. Storage Tank (S-1327-159-0 and '160-0)

Permit units S-1327-159-0 and '160-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Condition 4 and 8 from the PTO were included as conditions 3 and 7 from the requirements for this permit unit.

nn. Storage Tank (S-1327-169-0)

Permit unit S-1327-169-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 2 from the PTOs was unnecessary and therefore deleted.
- Conditions 3 through 6, 8 through 19, 21 through 24, 27 and 29 through 36 from the PTO were included as conditions 2 through 5, 7 through 18, 20 through 23, 26, and 28 through 35 from the requirements for this permit unit.

oo. Storage Tank (S-1327-170-0)

Permit unit S-1327-170-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 1 and 2, 4 through 15 and 17 from the PTO were included as conditions 1 and 2, 4 through 15 and 17 from the requirements for this permit unit.

pp. Storage Tank (S-1327-171-0)

Permit units S-1327-171-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2, 3 and 5 through 9 from the PTO were included as conditions 1, 2 and 4 through 8 from the requirements for this permit unit.

qq. Storage Tank (S-1327-172-0 and '173-0)

Permit units S-1327-172-0 and '173-0 were subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 1, 2, 4 through 15, 17 and 18 from the PTO were included as conditions 1, 2, 4 through 15 and 17 from the requirements for this permit unit.

rr. Storage Tank (S-1327-171-0)

Permit units S-1327-171-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

Vintage  
Facility #: S-1327  
Project #: 1112521

- Condition 1 from the PTOs was included as condition 41 of the facility wide requirements. This condition is not federally enforceable because it is based on the public nuisance requirements of the California Health and Safety Code rather than a federally applicable requirement.
- Conditions 2, 3 and 5 through 9 from the PTO were included as conditions 1, 2 and 4 through 8 from the requirements for this permit unit.

ss. Wells (S-1327-175-0)

Permit units S-1327-175-0 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 2, 3, 6 through 10 and 12 from the PTO were included as conditions 2, 3, 6 through 10 and 12 from the requirements for this permit unit.

2. **District Rule 1100 Equipment Breakdown** (as amended December 17, 1992) - (Non SIP replacement for Kern County Rule 111)

a. Facility-wide (S-1327-0-1)

Section 6.1 requires the owner or operator to notify the APCO of any occurrence which constitutes a breakdown condition; the notification should include time, location, and equipment involved and to the extent known the cause of the occurrence. Such notification should be given as soon as reasonably possible, but no later than one hour after detection, unless the owner or operator demonstrates to the APCO that the longer reporting period was necessary. Condition 1 of facility-wide requirements (S-1327-0-1) assures compliance with this requirement.

Section 7.0 requires the owner or operator to submit the APCO a written report within ten days of any occurrence that constitutes a breakdown condition. The report should include time, location, equipment involved, cause of the occurrence, estimated emissions in excess of those allowed, and methods utilized to restore normal operation. Conditions 2 and 11 of facility-wide requirements (S-1327-0-1) assure compliance with this requirement.

District Rule 1100 has been submitted to the EPA to replace the SIP approved Kern County APCD Rule 111. District Rule 1100 is at least as stringent as the County Rule addressing breakdowns, as is evident in the comparison on below in table 1:

**Table 1 - Comparison of District Rule 1100 to Kern County Rule 111**

REQUIREMENT	District Rule 1100	Kern County Rule 111
A breakdown occurrence must be reported as soon as reasonably possible but no later than 1 hour after detection.	✓	✓ (2 hours)
A variance must be obtained if the occurrence will last longer than a production run or 24 hours, whichever is shorter (96 hours for CEM systems)	✓	✓
A report must be submitted to the APCO within 10 days of correction of a breakdown occurrence which includes the following:	✓	✓
1) A statement that the breakdown condition has been corrected together with the date of correction and proof of compliance.	✓	✓
2) A specific statement of the reason(s) or cause(s) for the occurrence sufficient to enable the APCO to determine whether the occurrence was a breakdown condition.	✓	✓
3) A description of corrective measures undertaken and/or be undertaken to avoid such an occurrence in the future.	✓	✓
4) Pictures of the equipment or controls which, failed if available.	✓	✓

**3. District Rule 1130 Severability (as amended December 17, 1992)**

a. Facility Wide (S-1327-0-1)

Section 2.0 requires that if any provision, clause, sentence, paragraph, section or part of these conditions for any reason be judged invalid, such judgment shall not affect or invalidate the remainder of conditions. Condition 12 of facility wide requirements (S-1327-0-1) assures compliance with this requirement.

**4. District Rule 1160 Emission Standards (adapted November 18, 1992)**

a. Facility-wide (S-1327-0-1)

Section 5.0 requires the owner or operator of any stationary source to provide the District with a written emission statement showing actual emissions of reactive organic gases (ROGs) and nitrogen oxides (NO<sub>x</sub>) from that source. The District waives this requirement for sources emitting less than 25 tons per year of these pollutants if the District provides the Air Resources Board (ARB) with an emission inventory of sources emitting greater than 10 tons per year of NO<sub>x</sub> or ROGs based on the use of emission factors acceptable to the ARB. See condition 3 of the facility-wide requirements (S-1327-0-1).

**5. District Rule 2020 Exemptions (as amended March 21, 2002) - (Non SIP replacement for Kern County Rule 202)**

a. Facility Wide (S-1327-0-1)

District Rule 2020 has been submitted to the EPA to replace Kern County APCD Rules 202. The comparison of the District and the County Rule presented below in table 2 indicate that the District Rule is at least as stringent as the County Rule.

**Table 2- Comparison of District Rule 2020 to Kern County Rule 202**

REQUIREMENT	District Rule 2020	Kern County Rule 202
An ATC or PTO is not required for listed exempt equipment	✓	✓
Conditions are stated under which listed exempt equipment will require an ATC or PTO.	✓	
Recordkeeping is required to verify and maintain exemption, when the exemption is based on a maximum daily limitation.	✓	
A compliance schedule is stated for equipment, which loses exemption from permitting, necessitating submission of a PTO application.	✓	

District Rule 2010 sections 3.0 and 4.0 require any person building, modifying or replacing any operation that may cause the issuance of air contaminants to apply for an Authority to Construct (ATC) from the District in advance. The ATC will remain in effect until the Permit to Operate (PTO) is granted.

District Rule 2020 lists equipment which are specifically exempt from obtaining permits and specifies recordkeeping requirements as stated in condition 4 of the facility wide requirements (S-1327-0-1).

**6. District Rule 2031 Transfer of Permits; District Rule 2070, Standards for Granting Applications; and District Rule 2080, Conditional Approval (as amended December 17, 1992)**

a. Facility Wide (S-1327-0-1)

These rules set forth requirements to comply with all conditions of the Permit to Operate. Permits to Operate or Authorities to Construct are not transferable unless a new application is filed with and approval by the District. All source operations must be constructed and operated as specified in the Authority to Construct. See condition 6 of the facility wide requirements (S-1327-0-1).

b. Storage Tank (S-1327-126)

Permit units S-1327-126 was subject to the District NSR Rule at the time the applicant applied for an Authority to Construct

- Conditions 26 through 32 from the PTO were included as conditions 25 through 31 from the requirements for this permit unit.

7. **District Rule 2040 Applications** (as amended December 17, 1992)

a. Facility Wide (S-1327-0-1)

Section 3.0 requires that every application for a permit shall be filed in a manner and form prescribed by the District. See condition 7 of the facility wide requirements (S-1327-0-1).

8. **District Rule 2520 Federally Mandated Operating Permits** (as amended June 21, 2001)

a. Facility Wide (S-1327-0-1)

Section 5.2 requires that permittees submit applications for Title V permit renewal at least six months prior to permit expiration. Condition 37 of the facility wide requirements (S-1327-0-1) assures compliance with this requirement.

Section 9.3.2 states that periodic monitoring be required if none is associated with a given emission limit to assure compliance. Monitoring is required for the permit units. The following table shows permit units and conditions requiring periodic monitoring.

Sections 9.4.1 and 9.4.2 contain requirements to incorporate all applicable record keeping requirements into the Title V permit, specific records of any required monitoring, and the retention of all required monitoring data and support information for five years. The requirements to keep specific monitoring records and retain records for five years are stated in condition 8 and 9 of the facility wide requirements (S-1327-0-1). The following table shows permit units and conditions requiring periodic monitoring.

Table 6: Section 9.4 Condition Mapping

Permit Unit	Section 9.4
S-1327-42.8	19
S-1327-70-1	16

Section 9.5 contains requirements for the submittal of reports for monitoring results at least every six months and prompt recording of deviations from permitting requirements, including those attributable to upset conditions. All required reports must be certified by the responsible official. These requirements are stated in conditions 10 and 11 of the facility wide requirements (S-1327-0-1).



Vintage  
Facility #: S-1327  
Project #: 1112521

Section 9.7 states that the Title V permit also must contain a severability clause in case of a court challenge; the severability clause is in condition 12 of the facility wide requirements (S-1327-0-1).

Section 9.8 contains following provisions for the Title V permit: 1) the permittee must comply with all permit conditions; 2) that the permitted activity would have to be reduced to comply with the permit conditions should not be a defense in an enforcement action, 3) that the permit may be revoked, modified, reissued, or reopened for cause, 4) that the Title V permit does not reflect any property rights, and 5) that the permittee will furnish the District with any requested information to determine compliance. Compliance with this section will be assured by conditions 5 and 13 through 16 of the facility wide requirements S-1327-0-1.

Section 9.9 requires the permittee to pay annual permit fees and applicable fees described in District Rules 3010, 3030, 3050, 3080, 3090, 3110, and 3120. This requirement is stated in condition 17 of the facility wide requirements (S-1327-0-1).

Section 9.12.1 states that all terms and conditions of a permit are required pursuant to the CAA, including provisions designed to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. This requirement is stated in condition 5 of the facility wide (S-1327-0-1).

Section 9.13.1 requires that any report or document submitted under a permit requirement or following a request for information by the District or EPA to contain certification by a responsible official to its truth, accuracy, and completeness. Compliance with this section will be assured by condition 28 of the facility wide requirements (S-1327-0-1).

Section 9.13.2 presents inspection and entry requirements that allow an authorized representative of the District to enter a permittee's premises to inspect equipment, operations, work practices, permits on file, and to sample substances or monitor parameters for the purpose of assuring compliance with the permit requirements. Compliance with these requirements will be assured by conditions 18, 19, 20, and 21 of the facility wide requirements (S-1327-0-1).

Section 9.16 requires the permittee to submit certification of compliance with the terms and standards of Title V permits to the EPA and the District annually (or more frequently as required by the applicable District requirement). Condition 36 of the facility wide requirements (S-1327-0-1) assures compliance with this requirement.

Section 10.0 requires that any application form, report or compliance certification submitted pursuant to these regulations to contain certification

of truth, accuracy, and completeness by a responsible official. Compliance with this section will be assured by condition 26 of the facility wide requirements (S-1327-0-1).

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.

9. **District Rule 4101 Visible Emissions** (as amended February 17, 2005)

a. Facility Wide (S-1327-0-1)

Section 5.0 prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No.1 on the Ringlemann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than 20% opacity. This requirement is stated in condition 22 of the facility wide requirements (S-1327-0-1).

10. **District Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2** (as amended August 21, 2003)

Since emissions limits of District Rules 4306 and 4320 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rules 4306 and 4320 requirements will satisfy requirements of District Rule 4305. Therefore, compliance with District Rule 4305 requirements is expected and no further discussion is required.

11. **District Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3** (as amended October 16, 2008)

Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4306. Therefore, compliance with District Rule 4306 requirements is expected and no further discussion is required.

12. **Rule 4311 Flares** (as amended June 15, 2009)

a. Flare (S-3088-42, '70, '83)

Section 5.2 requires that the flame shall be present at all times when combustible gases are vented through the flare.

Vintage  
Facility #: S-1327  
Project #: 1112521

Section 5.3 requires that 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.

Section 5.4 requires that 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.

Section 5.5 requires flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot, shall use purge gas for purging.

Section 5.6 requires 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.

Section 6.2 includes record-keeping requirements for flares subject to Section 5.6, ground level flares, emergency flares, and Section 4.3 (exemption). Therefore this section is not applicable.

The following conditions of the requirements for these permits units assures compliance with this rule:

- Flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times when combustible gases are vented to the flare. [District Rule 4311] Y
- A flame shall be present at all time when combustible gases are vented through the flare. [District Rule 4311] Y
- The outlet shall be equipped with an automatic ignition system, or, shall be operated with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Y
- 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] Y
- Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Y

- 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. [District Rule 4311] Y

**13. Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators and Process Heaters Greater than 5.0 MMBtu/Hr**  
(adopted October 16, 2008)

- a. Steam Generators (S-1327-32, '34, '35, '83, '116, '120, '130 through '138 and '155)

The purpose of this rule is to limit emissions of NO<sub>x</sub>, CO and SO<sub>x</sub> and PM<sub>10</sub> from boilers, steam generators, and process heaters. Therefore steam generators S-1327-32, '34, '35, '83, '116, '120, '130 through '138 and '155 are subject to this rule.

Sections 5.1 and 5.2 require that 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:

- 5.1.1 Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or  
5.1.2 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  
5.1.3 Comply with the applicable Low-use Unit requirements of Section 5.5.

An annual emissions fee is paid for steam generators S-1327-34, '120, '137 and '138. Compliance with this Section is expected.

- Compliance with these requirements for S-1327-34-6, '120-1, '137-1 and '138-1 will be assured by conditions 26 and 27, 40 and 41, 28 and 29, and 29 through 30, respectively.

Section 5.2 requires that oilfield steam generators with heat inputs greater than 20 MMBtu/hr be in compliance with the NO<sub>x</sub> emissions limit of 7 ppmv by July 1, 2010, or 9 ppmv by July 1, 2012 followed by 5 ppmv by January 1, 2014.

Steam generators S-1327-32-3, has been permitted to operate at 9 ppmv NO<sub>x</sub>. Compliance with this Section is expected.

Steam generators S-1327-35-2, '130-0 through 136-0 and '155-0 have all been permitted to operate at 7 ppmv NO<sub>x</sub>. Compliance with this Section is expected.

Steam generator S-1327-116-0 is non-compliant dormant for this rule and according to the Emission Control Plan the PTO will be surrendered upon implementation ATCs S-1327-141-1 through '145-1.

Non-compliant dormant conditions 1 through 3 will ensure the unit is not operated unless retrofit to meet the emission requirements of this rule.

Therefore, compliance with District Rule 4320 requirements is expected and no further discussion is required.

**14. Rule 4401 Enhanced Crude Oil Production Well Vent (as amended 6/16/11)**

The SIP approved version of Rule 4401 is the version amended on 12/14/06. Rule 4401 was amended on 6/16/11, however, these amendments have not yet been approved into the SIP. The 6/16/11 amendments established more stringent requirements for source testing VOC control systems. Therefore, compliance with the currently applicable requirements of the 6/16/11 amendments demonstrates compliance with the requirements of the SIP approved version of Rule 4401.

TEOR Operation Serving 100 Wells (S-1327-42)

Standard Rule 4401 Title V conditions 47 through 84 of the requirements for this permit unit assures compliance with this rule.

TEOR Operation Serving 100 Wells (S-1327-70)

Standard Rule 4401 Title V conditions 21 through 57 of the requirements for this permit unit assures compliance with this rule

**15. Rule 4407 In-Situ Combustion Well Vents (Adopted May 19, 1994)**

In-situ wells (S-1327-175)

This rule requires that in-situ combustion wells be vented an emissions control device which abates 85 percent by weight of entering VOC gases and vapors, or to fuel burning equipment or a smokeless flare. And that all components of a collection and control system shall be maintained in good repair. The total number of leaks in a collection and control system shall not exceed two (2) percent of the components in the collection and control system.

This rule requires that all components of a collection and control system shall be inspected by the facility operator on a quarterly basis to ensure compliance with the provisions of this rule. If no more than two (2) percent of all components of the collection system are found to be leaking during each of three (3) consecutive quarterly inspections, the inspection frequency may be changed from quarterly to annual.

An operator, upon detection of a leak, shall affix a readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired. An operator shall repair each leak within 15 days of detection. The APCO may grant a ten (10) day extension to repair a leak, provided the operator demonstrates that necessary and sufficient actions have been and are being taken to correct the leak. Failure to repair a leak after a ten (10) day extension constitutes a violation of this rule.

Compliance testing for VOC control efficiency shall be performed annually on all collection and control systems used to comply with this rule. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive the test requirements for VOC control efficiency if all uncondensed VOC emissions collected by a collection and control system are burned in fuel burning equipment or in a smokeless flare.

The operator of any in-situ combustion well shall maintain records of operations of each well undergoing stimulation including well number and location, well stimulation start-up and shut down dates, and list of equipment operated, on a monthly basis.

The operator of any in-situ combustion well shall maintain an inspection and maintenance log which contains the date of each inspection, the date of discovery of leaking components, and the date of repair.

Records shall be maintained for a period of two years and be submitted to the APCO upon request.

- Compliance with these requirements for will be assured by conditions 2, 5, 6 7, 11 and 13 from the requirements for this permit unit.

**16. District Rule 4601 Architectural Coatings** (as amended December 17, 2009)

- a. Facility Wide (S-1327-0-1)

The latest version of District Rule 4601 has not been SIP approved. Attachment D contains the streamlining of the SIP approved District Rule 4601 (10/31/01) to the current District Rule 4601 to show the current rule is as stringent if not more than the SIP approved version. Conditions 23 through 25 on the facility-wide permit (S-1327-0-1) demonstrate compliance with the requirements of the latest version of this rule.

17. **District Rule 4623 Storage of Organic Liquids** (as amended May 19, 2005)

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.

Tanks S-1327-159 and '160 do not store VOCs and therefore are not subject to this rule.

This rule limits volatile organic compound (VOC) emissions from the storage of organic liquids. It applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored. The rule was amended in May 19, 2005.

Section 4.4 states that 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:

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

Tanks S-1327-36, '37, '38, '55 through '60, '80, '81, '82, '84 through '92, '102 through '115, '117 through '119, '121 through '129, '139, '140 and '146 are limited to 0.5 psia TVP.

The following conditions of the requirements for these permits units assures compliance with this rule:

- This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]

Vintage  
Facility #: S-1327  
Project #: 1112521

- 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]
- 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]
- 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]
- 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]
- 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]
- 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]
- 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]

Section 5.1 requires that no organic liquid shall be placed, held, or stored in any tank unless the tank is equipped with a VOC control system identified in Table 1.



Vintage  
Facility #: S-1327  
Project #: 1112521

Section 5.2 requires that pressure-vacuum relief valve shall be set to within ten (10) percent of the maximum allowable working pressure of the tank. The valves shall be permanently labeled with the operating pressure settings.

Section 5.6 requires that fixed roof tanks shall be fully enclosed and shall be maintained in a leak-free condition. The approved vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank, and a VOC control device. This section also specifies the applicable VOC control device.

Section 5.7 states that only operators who elect to participate in the voluntary tank preventive inspection and maintenance, and tank interior cleaning program shall be allowed to use the provisions specified in Tables 3 to 5 and Section 5.7.5.

Tanks S-1327-169, 170, '171, '172 and '173 are served by a vapor control system.

The following conditions of the requirements for these permits units assures compliance with this rule:

- Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rules 2201 and 4623] Y
- All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Y
- A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rules 2201 4623] Y
- Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall

Vintage  
Facility #: S-1327  
Project #: 1112521

be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Y

Section 5.7 states that only operators who elect to participate in the voluntary tank preventive inspection and maintenance, and tank interior cleaning program shall be allowed to use the provisions specified in Tables 3 to 5 and Section 5.7.5.

Tanks S-1327-169, 170, '172 and '173 have elected to participate in the voluntary tank preventive inspection and maintenance, and tank interior cleaning program.

The following conditions of the requirements for these permits units assures compliance with this rule:

- All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Y
- If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Y
- Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rules 2201 and 4623] Y
- Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rules 2201 and 4623] Y

- If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rules 2201 and 4623] Y
- Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623] Y
- Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623] Y
- Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623] Y

**18. District Rule 4702, Internal Combustion Engines–Phase 2**

This analysis is based on the latest revision (August 18, 2011) which has not been SIP approved. However, this rule only impacts the emergency IC engine at this facility, and these requirements are identical to the latest SIP approved revision (January 18, 2007). The only change is Section 5.7 has been moved to Section 5.9. Therefore, compliance with this revision ensures compliance with the SIP approved January 18, 2007 revision. No further stringency analysis is required.

The purpose of this rule is to limit the emissions of NO<sub>x</sub>, CO, VOC, and SO<sub>x</sub> from internal combustion engines. The rule applies to any engine rated at 25 bhp or greater.

Unit S-1327-174 is the only unit at this facility that is subject to the requirements of this rule.

Pursuant to Section 4.2, except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter.

- 4.2.1 In lieu of operating a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a nonresettable elapsed time meter.
- 4.2.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

Section 3.15 defines an "Emergency Standby Engine" as an internal combustion engine which operates as a temporary replacement for primary mechanical or electrical power during an unscheduled outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the operator. An engine shall be considered to be an emergency standby engine if it is used only for the following purposes: (1) periodic maintenance, periodic readiness testing, or readiness testing during and after repair work; (2) unscheduled outages, or to supply power while maintenance is performed or repairs are made to the primary power supply; and (3) if it is limited to operate 100 hours or less per calendar year for non-emergency purposes. An engine shall not be considered to be an emergency standby engine if it is used: (1) to reduce the demand for electrical power when normal electrical power line service has not failed, or (2) to produce power for the utility electrical distribution system, or (3) in conjunction with a voluntary utility demand reduction program or interruptible power contract.

The emergency standby IC engine meets the definition of "Emergency Standby Engine" and will only have to meet the requirements of Sections 5.9 and 6.2.3 of this Rule.

Section 5.9.1.3 of this Rule requires that the owner of an engine subject to Section 4.2 of this rule shall comply with the requirements specified in Section 5.9.2 through Section 5.9.5 below:

- 5.9.2 Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.
- 5.9.3 Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.
- 5.9.4 Install and operate a nonresettable elapsed time meter.

5.9.4.1 In lieu of installing a nonresettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA and is allowed by a Permit-to-Operate or Permit-Exempt Equipment Registration condition.

5.9.4.2 The operator shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

Section 5.9.5 applies to the AO spark-ignited engine that has been retrofitted with a NOx exhaust control. Since the IC engine at this facility (permit unit S-1327-174 is not spark ignited, this section is not applicable.

Section 6.2.3 requires that an owner claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and submitted to the APCO upon request and at the end of each calendar year in a manner and form approved by the APCO.

Compliance with these requirements is assured by conditions 8 thru 15 on Title V PTO S-1327-174-1.

## 19. Rule 4001 New Source Performance Standards (NSPS)

### 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Diesel IC Engine S-1327-174-0

The following table lists the requirements of 40 CFR Part 60 Subpart IIII.

<b>40 CFR 60 Subpart IIII Requirements for New Emergency IC Engines Powering Generators (2007 and Later Model Year)</b>
Engine(s) must meet the appropriate Subpart IIII emission standards for new engines, based on the model year, size, and number of liters per cylinder.
Engine(s) must be fired on 500 ppm sulfur content fuel or less, and fuel with a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume. Starting in October 1, 2010, the maximum allowable sulfur fuel content will be lowered to 15 ppm.
The operator/owner must install a non-resettable hour meter prior to startup of the engine(s).
Emergency engine(s) may be operated for the purpose of maintenance and testing up to 100 hours per year. There is no limit on emergency use.
The owner/operator must operate and maintain the engine(s) and any installed control devices according to the manufacturers written instructions.

Compliance with these requirements is assured by conditions 4, 5,8 and 13 on the Title V Title V PTO S-1327-174-1.

**20. Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)**

**A. 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines**

Emergency engines are subject to this subpart if they are operated at a Major or Area Source of Hazardous Air Pollutant (HAP) emissions. A Major Source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An Area Source of HAPs is a facility that is not a Major Source of HAPs. The proposed engine is new stationary RICE located at an Area Source of HAP emissions; therefore, the engine is subject to this Subpart.

40 CFR 63 Subpart ZZZZ requires the following engines to comply with 40 CFR 60 Subpart IIII:

1. New emergency engines located at Area Source of HAPs
2. Emergency engines rated less than or equal to 500 bhp and located at major sources of HAPs

Engine S-1327-174 is a "new" emergency engines located at Area Source of HAPs and is in compliance with 40 CFR 60 Subpart IIII.

Additionally, 40 CFR 63 Subpart ZZZZ requires engines rated greater 500 bhp and located at major sources of HAPs to meet the notification requirements of §63.6645(h); however, that section only applies if an initial performance test is required. Since an initial performance test is not required for emergency engines, the notification requirement is not applicable.

Compliance with these requirements is assured by conditions 4, 5,8 and 13 on the Title V Title V PTO S-1327-174-1.

**21. District Rules 8021, 8031, 8041, 8051, 8061, and 8071 Fugitive Dust (PM<sub>10</sub>)Emissions (as amended September 17, 2004)**

- a. Facility Wide (S-1327-0-1)

These rules contain requirements for the control of fugitive dust. These requirements apply to a variety of sources, including: construction, demolition, excavation, extraction, and water mining activities; outdoor storage piles; paved and unpaved roads. Conditions 29 through 34 of the facility wide requirements (S-1327-0-1) assure compliance with these rules.

**22. 40 CFR 82 Subpart B & F - Stratospheric Ozone**

a. Facility Wide (S-1327-0-1)

These are applicable requirements from Title VI of the CAA (Stratospheric Ozone) which apply to all sources. The requirements pertain to air conditioners, chillers, and refrigerators located at a Title V source and to disposal of air conditioners or maintenance/recharging/disposal of motor vehicle air conditioners. Conditions 27 & 28 of the facility wide requirements (S-1327-0-1) address these requirements.

**23. 40 CFR 61, Subpart M - Asbestos**

a. Facility Wide (S-1327-0-1)

These are applicable requirements from the National Emissions Standards for Hazardous Air Pollutants, which apply to all sources. The requirements pertain to asbestos removal and disposal from renovated or demolished structures. Compliance with these requirements is assured by condition 35 of the facility wide requirements (S-1327-0-1).

**24. CFR Part 64 Compliance Assurance Monitoring**

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

- 1) the unit must have an emission limit for the pollutant;
- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

a. S-1327-116-0: STEAM GENERATOR and

S-1327-41: HEATER TREATER

Vintage  
 Facility #: S-1327  
 Project #: 1112521

These units are not equipped with an add on control device. Therefore, CAM is not triggered for these units.

b. S-1327-32, '34, '35, '120, '130 through '138 and '155: STEAM GENERATORS WITH FGR

These units may be subject to CAM for NO<sub>x</sub>, as there is a NO<sub>x</sub> limit, and the units have an add-on control in the form of FGR. As shown below, the pre-control potential to emit for the worst case unit (highest heat input rating) is not greater than the major source threshold of 20,000 pounds NO<sub>x</sub>/year. The pre-control potential to emit is not greater than the major source threshold for NO<sub>x</sub> therefore CAM is not triggered by this unit.

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	18

The control efficiency of FGR is,

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

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

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

$$\begin{aligned} \text{PE}_{\text{Precontrolled}} &= \text{Heat Rating} \times \text{Emission Factor}_{\text{Precontrolled}} \times \text{Operating Schedule} \\ &= 85.0 \text{ MMBtu/hr} \times 0.013 \text{ lb-NO}_x/\text{MMBtu} \times 8760 \text{ hr/yr} \\ &= 9680 \text{ lb-NO}_x/\text{yr} \end{aligned}$$

c. S-1327-126 through 129, '146, '159 and '160: TANK WITH VAPOR CONTROL SYSTEM and

S-1327-42 and '70: THERMALLY ENHANCED OIL RECOVERY OPERATION WITH WELL VENT VAPOR CONTROL SYSTEM



Vintage  
Facility #: S-1327  
Project #: 1112521

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

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

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

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

*Control device* means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part.

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

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

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

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

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

- Tank and well vapor control systems reduce emission of H<sub>2</sub>S (a toxic substance) from the tanks/wells and as such assure worker safety for OSHA and other regulatory requirements.
- Tank vapor control systems minimize air intrusion into the vapor space and as such reduces corrosion of the tank interior. Such systems are commonly installed even though they are not required to comply with District regulations. District Rule 4623 – Storage of Organic Liquids does not require vapor control on storage tanks storing liquids with a true vapor pressure of less than 0.5 psia. Due to the relatively low actual emissions from such tanks, vapor control is typically not a Rule 2201 best available control technology (BACT) requirement for most heavy crude oil storage tanks. Even though not required by District rules, facilities commonly install vapor control on storage tanks for safety and corrosion prevention purposes.
- As stated above, facilities commonly install vapor control on tanks even though there is not an requirement to do so. Vapor control has historically been installed on crude oil production well vents as well prior to the requirement to install such controls. In fact, the District has issued emission reduction credits for the installation of well vent vapor control systems.

- Vapors collected by tank and well vapor control systems are commonly burned in multiple existing units, e.g. steam generators, in which useful energy is recovered. Steam generators, are used in oil production to enhance oil recovery from production wells. The steam generators, wells and tanks (with their associated vapor control systems) are part of the overall process to thermally enhance oil production.

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

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

- d. S-1327-58, '59, '60, '60, '80, '81, '82, '84 through '92, '102, '103, '104, '106, '107, '108, '109, '111 through '119 and '121 through '125: TANK WITHOUT VAPOR CONTROL SYSTEM

These permit units are not subject to CAM since the units do not have add-on controls.

- e. S-1327-36, '37, '38, '55, '56, '57, '105, '139 and '140: TANKS WITHOUT DELs

These permit units are not subject to CAM since the units do not have DELs.

- f. S-1327-83: FLARE

This permit unit is not subject to CAM since it does not have add-on control.

## **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 Operating 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**

The applicant has not requested to utilize any model general permit templates.

**B. Requirements not Addressed by Model General Permit Templates**

The applicant has requested a broad permit shield for all of requirements the facility is subject. Per District policy such broad permit shields can not be granted.

**XI. PERMIT CONDITIONS**

See attached Initial TV Operating Permits.

# San Joaquin Valley Air Pollution Control District

FACILITY: S-1327-0-1

EXPIRATION DATE: 02/28/2014

## FACILITY-WIDE REQUIREMENTS

1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 2080; and 2520] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040]
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520] 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: VINTAGE PRODUCTION CALIFORNIA LLC  
Location: HEAVY OIL WESTERN, KERN COUNTY, CA  
S-1327-0-1 : Sep 20 2012 12:07PM - TORID

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 1100] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rules 1130 and 2520] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (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

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

23. 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] Federally Enforceable Through Title V Permit
24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601] Federally Enforceable Through Title V Permit
25. 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] Federally Enforceable Through Title V Permit
26. 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] Federally Enforceable Through Title V Permit
27. 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. 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. 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. 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. 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. 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. 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
34. 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. 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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

36. 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] Federally Enforceable Through Title V Permit
37. 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] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 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] Federally Enforceable Through Title V Permit
40. 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] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
42. Facilities S-6848 and S-1327 constitute one stationary source. [District Rule 2201] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1327-31-2

SECTION: 19&20 TOWNSHIP: 11N RANGE: 22W

EQUIPMENT DESCRIPTION:  
CANCELED

EXPIRATION DATE: 02/28/2014

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## PERMIT UNIT REQUIREMENTS

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-32-8

EXPIRATION DATE: 02/28/2014

SECTION: 12&24 TOWNSHIP: 30S RANGE: 21E

## EQUIPMENT DESCRIPTION:

36 MMBTU/HR NATURAL/TEOR GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME ULTRA LOW-NOX BURNER AND FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Steam generator shall only be authorized to operate at SW/4 Section 12, T30S, R21E, NE/4 Section 24 T30S R 21E, and SW/4 Section 24, T30S, R21E. [District Rule 4102]
4. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1081] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on PUC-regulated natural gas and TEOR gas with a sulfur content no greater than 1 gr S/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions rates from the steam generator shall not exceed any of the following limits: 9 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. 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, 4306 and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
11. Permittee shall determine sulfur content of scrubbed TEOR gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
12. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on TEOR gas shall be conducted within 60 days of initial TEOR gas firing. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
13. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. 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
17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rules 1081, 4305, 4306, 4351 and 4320] Federally Enforceable Through Title V Permit
19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. Permittee shall maintain daily records of fuel type and amounts combusted. [District Rule 1070]

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

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

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-34-6

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NE 15 **TOWNSHIP:** 27S **RANGE:** 19E

**EQUIPMENT DESCRIPTION:**

23.0 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (HSG #29; DIS# 21004-66) WITH NORTH AMERICAN BURNER AND FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
3. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
7. The equipment shall not be operated within 1,000 feet of a K-12 school. [CH&SC 42301.6] Federally Enforceable Through Title V Permit
8. The equipment shall not operate closer than 1,000 feet of the nearest receptor (off-site residence or business). [District Rule 4102] Federally Enforceable Through Title V Permit
9. 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 Rules 1070 and 2520] Federally Enforceable Through Title V Permit
10. Only pipeline quality gas and vapor recovery gas from TEOR system S-1327-42 shall be used as a fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rates shall not exceed any of the following: NO<sub>x</sub>: 15 ppmvd @ 3% O<sub>2</sub>, PM<sub>10</sub>: 0.0076 lb/ MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 0.00285 lb/ MMBtu, VOC: 0.003 lb/ MMBtu, or CO: 45 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201, 4305 & 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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] Federally Enforceable Through Title V Permit
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 the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
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] 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] 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 at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
20. 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
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
26. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320] Federally Enforceable Through Title V Permit
27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit
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, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-35-3

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR TEOR/NATURAL GAS-FIRED STRUTHERS STEAM GENERATOR WITH NORTH AMERICAN MAGNAFLAME 4231-G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION. (NORTH ANTELOPE LEASE OR HSG-179 MCKITTRICK)

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. This unit is authorized to operate at either the facility's North Antelope Lease (SE/4 Sec.15, T27S, R19E) or at the Mckittrick Field at SW/4 Sec. 12, T30S, R21E). [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
4. The permittee shall notify the District Compliance Division each time the unit switches locations. Such notification shall be made no later than 48 hours after starting operation at the new location. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All wells producing from strata steamed by this unit shall be connected to a District-approved emission control system, have District-approved closed casing vents or be District -approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
7. 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
8. Only pipeline quality gas and vapor recovery gas from TEOR system S-1327-42 shall be used as a fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
9. When fired on natural gas and/or treated TEOR vapor recovery gas, emission rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.01 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306 5.1.1] Federally Enforceable Through Title V Permit
10. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



11. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Permittee shall determine sulfur content of fuel gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, and 4320] 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, 4306, and 4320] 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, 4306, and 4320] Federally Enforceable Through Title V Permit
15. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert back to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] 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, 4306, and 4320] 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. Unless otherwise 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 4320. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. 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
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, 4306, and 4320] 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, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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, 4306, and 4320] Federally Enforceable Through Title V Permit
23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
24. Permittee shall maintain daily records of fuel type and amounts combusted, and records of fuel gas sulfur compound measurements. [District Rules 1070, 2201, and 4320] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-36-3

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

2,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK (#26738)

DRAFT

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1] Federally Enforceable Through Title V Permit
7. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1] 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
9. 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
10. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-37-3

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

3,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, WASH TANK

EXPIRATION DATE: 02/28/2014

DRAFT

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530] Federally Enforceable Through Title V Permit
7. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530] 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
9. 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
10. 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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-38-3

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

2,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK (#26L39)

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530] Federally Enforceable Through Title V Permit
7. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530] 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
9. 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
10. 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.

San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1327-41-2

EXPIRATION DATE: 02/28/2014

SECTION: 15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

4.25 MMBTU/HR GAS-FIRED HEATER TREATER CONSISTING OF TWO BURNERS EACH RATED 1.75 MMBTU/HR AND ONE BURNER RATED AT 0.75 MMBTU/HR (NORTH ANTELOPE HILLS)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-42-8

EXPIRATION DATE: 02/28/2014

SECTION: 15 TOWNSHIP: 27S RANGE: 19E

## EQUIPMENT DESCRIPTION:

TEOR OPERATION WVC SYSTEM INCLUDING 100 STEAM DRIVE WELLS, HEAT EXCHANGER (OPTIONAL), GAS/LIQUID SEPARATOR, VACUUM PUMP SKID, SULFUR REMOVAL SYSTEM, AND COMPRESSED VAPOR PIPING TO DISTRICT APPROVED INCINERATION/DISPOSAL DEVICES LISTED ON PERMIT S-1326-32, '-34, '-35 AND 4.58 MMBTU/HR COANDA EFFECT SMOKELESS FLARE WITH NATURAL GAS/PROPANE PILOT

## PERMIT UNIT REQUIREMENTS

1. All components of well vent vapor collection and control systems shall be maintained in good working condition. [District Rule 4401] Federally Enforceable Through Title V Permit
2. Leaks shall be inspected and repaired as specified in Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
3. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401] Federally Enforceable Through Title V Permit
4. TEOR operation shall include heat exchanger, gas/liquid separator, vacuum pump skid, and compressed vapor piping with vapors incinerated in steam generators '-32, '-34, '-35, '-71, '-72, and/or flare. [District Rule 2201] Federally Enforceable Through Title V Permit
5. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Flare shall be equipped with waste gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times when combustible gases are vented to the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
9. Total concentration of sulfur compounds in gas incinerated in incineration devices shall not exceed 4 ppmv. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
10. Maximum amount of waste gas combusted in incineration devices shall not exceed 250 MMBtu/day or 31,025 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from the flare shall not exceed any of the following (based on total gas combusted): PM-10: 0.008 lb/MMBtu; NOx (as NO2): 0.068 lb/MMBtu; VOC: 0.063 lb/MMBtu; or CO: 0.37 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Maximum VOC content of TEOR operation vapor shall not exceed 10% by weight. [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. Operator shall conduct quarterly sampling of vapor to qualify for exemption from fugitive component counts for components handling vapor with less than 10% VOC by weight. If vapor sampled contains less than 10% VOCs for 8 consecutive quarterly samplings, then sampling frequency shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
14. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Permittee shall maintain a written record of the VOC content and heating value of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
17. 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 waste 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
18. Weekly records of the waste gas sulfur content and daily records of waste gas flow rate shall be maintained, retained on the premises for a period of at least five years, and made available for District inspection on request. [District Rules 2201, 4311, and 4801] Federally Enforceable Through Title V Permit
19. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520] Federally Enforceable Through Title V Permit
20. A flame shall be present at all time when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
21. The outlet shall be equipped with an automatic ignition system, or, shall be operated with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
22. 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] Federally Enforceable Through Title V Permit
23. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
24. 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. [District Rule 4311] Federally Enforceable Through Title V Permit
25. Permittee shall maintain copies of the compliance determination conducted pursuant to Section 6.4.1, copies of the source testing result conducted pursuant to Section 6.4.2, a copy of the approved flare minimization plan pursuant to Section 6.5, effective on and after July 1, 2012, a copy of annual reports submitted to the APCO pursuant to Section 6.2, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9 and 6.10. [District Rule 4311] Federally Enforceable Through Title V Permit
26. For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311] Federally Enforceable Through Title V Permit
27. All records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request. [District Rule 4311] 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.



28. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, which ever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
29. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO that summarizes all Reportable Flaring Events that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year and shall include: 1) the results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time and duration of the flaring event. [District Rule 4311] Federally Enforceable Through Title V Permit
30. Effective on and after July 1, 2012, and annually thereafter, the operator shall submit an annual report to the APCO within 30 days following the end of each 12 month period include: 1) The total volumetric flow of vent gas in standard cubic feet for each day; 2) Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6; 3) If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated sulfur dioxide emissions; 8) A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311] Federally Enforceable Through Title V Permit
31. VOC emissions, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the equation in District Rule 4311, Section 6.3.1. [District Rule 4311] Federally Enforceable Through Title V Permit
32. NOx emissions in pounds per million BTU shall be determined by using EPA Method 19. NOx and O2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311] Federally Enforceable Through Title V Permit
33. Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, EPA Method 25A or 25B, or an alternative method approved by the APCO, ARB and EPA. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, ASTM Method D 4810-88, or an alternative method approved by the APCO, ARB and EPA. [District Rule 4311] Federally Enforceable Through Title V Permit
34. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85, or an alternative method approved by the APCO, ARB and EPA. [District Rule 4311] Federally Enforceable Through Title V Permit
35. Vent gas flow shall be determined using one of the following: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter; or an alternative method approved by the APCO, ARB, and EPA. [District Rule 4311] 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.

36. The operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval and shall include: 1) A description and technical specifications for each flare and associated knock-out pots, surge drums, water seals and flare gas recovery systems; 2) Detailed process flow diagrams of all upstream equipment and process units venting to each flare, identifying the type and location of all control equipment; 3) A description of equipment, processes, or procedures the operator plans to install or implement to eliminate or minimize flaring and planned date of installation or implementation; 4) An evaluation of prevention measures to reduce flaring that has occurred or may be expected to occur during planned major maintenance activities, including startup and shutdown; 5) An evaluation of preventative measures to reduce flaring that may be expected to occur due to issues of gas quantity and quality. The evaluation shall include an audit of the vent gas recovery capacity of each flare system, the storage capacity available for excess vent gases, and the scrubbing capacity available for vent gases including any limitations associated with scrubbing vent gases for use as a fuel; and shall determine the feasibility of reducing flaring through the recovery, treatment and use of the gas or other means; 6) An evaluation of preventative measures to reduce flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall determine the adequacy of existing maintenance schedules and protocols for such equipment. For purposes of this section, a failure is recurrent if it occurs more than twice during any five year period as a result of the same cause as identified in accordance with Section 6.2.2; 7) Any other information requested by the APCO as necessary for determination of compliance with applicable provisions of this rule. [District Rule 4311] Federally Enforceable Through Title V Permit
37. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
38. An updated FMP shall be submitted by the operator addressing new or modified equipment, prior to installing the equipment only if: 1) The equipment change would require an Authority To Construct (ATC) and would impact the emissions for the flare; 2) The ATC is deemed complete after June 18, 2009; 3) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit
39. When submitting the initial FMP, or updated FMP, the operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. and provide a justification for this designation and also submit a separate copy of the document with the information designated confidential redacted. [District Rule 4311]
40. The shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 in District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
41. The operator shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311] Federally Enforceable Through Title V Permit
42. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal that services each flare daily or as specified on the Permit to Operate. [District Rule 4311] Federally Enforceable Through Title V Permit
43. Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18-consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating. [District Rule 4311] Federally Enforceable Through Title V Permit

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

44. During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Section 6.6, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Section 6.3.4. During periods of inoperation of flow monitors required by Section 5.10, flow shall be calculated using good engineering practices. [District Rule 4311] Federally Enforceable Through Title V Permit
45. Permittee shall maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure. [District Rule 4311] Federally Enforceable Through Title V Permit
46. All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311] Federally Enforceable Through Title V Permit
47. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 4401]
48. The inspection and re-inspection requirements of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of 10% by weight or less. [District Rule 4401]
49. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
50. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
51. 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] Federally Enforceable Through Title V Permit
52. 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] Federally Enforceable Through Title V Permit
53. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
54. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] 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.

55. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401] Federally Enforceable Through Title V Permit
56. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit
57. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401] Federally Enforceable Through Title V Permit
58. 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] Federally Enforceable Through Title V Permit
59. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit
60. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401] Federally Enforceable Through Title V Permit
61. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
62. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
63. 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] Federally Enforceable Through Title V Permit
64. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit
65. A small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2 or Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
66. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
67. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401] Federally Enforceable Through Title V Permit
68. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401] 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.

69. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401] Federally Enforceable Through Title V Permit
70. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
71. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401] Federally Enforceable Through Title V Permit
72. Operator shall submit to the APCO not later than June 14, 2007 a list of all gauge tanks, as defined in Section 3.17. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401] Federally Enforceable Through Title V Permit
73. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401] Federally Enforceable Through Title V Permit
74. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401] Federally Enforceable Through Title V Permit
75. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401] Federally Enforceable Through Title V Permit
76. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit
77. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. [District Rule 4401] Federally Enforceable Through Title V Permit
78. An operator seeking approval pursuant to Section 6.2.2 or Section 6.2.3 shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401] Federally Enforceable Through Title V Permit
79. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

80. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401] Federally Enforceable Through Title V Permit
81. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit
82. 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] Federally Enforceable Through Title V Permit
83. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] Federally Enforceable Through Title V Permit
84. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-55-1

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

524 BBL FIXED ROOF CRUDE OIL STORAGE TANK

EXPIRATION DATE: 02/28/2014

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## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-3505-1.
2. Formerly permit number S-1372-360.
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. 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
10. 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.

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**San Joaquin Valley  
Air Pollution Control District**

**PERMIT UNIT:** S-1327-56-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW13 **TOWNSHIP:** 30S **RANGE:** 21E

**EQUIPMENT DESCRIPTION:**

785 BBL FIXED ROOF CRUDE OIL STORAGE TANK

**DRAFT**

**PERMIT UNIT REQUIREMENTS**

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1. Formerly permit number S-3505-2.
2. Formerly permit number S-1372-361.
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. 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
10. 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.

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San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1327-57-1

EXPIRATION DATE: 02/28/2014

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK

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**PERMIT UNIT REQUIREMENTS**

1. Formerly permit number S-3505-3.
2. Formerly permit number S-1372-362.
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. 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
10. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-58-1

EXPIRATION DATE: 02/28/2014

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

1,500 BBL FIXED-ROOF CONSTANT LEVEL CRUDE OIL WASH TANK

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## PERMIT UNIT REQUIREMENTS

1. Tank shall be operated at constant level. [District Rule 2201] Federally Enforceable Through Title V Permit.
2. VOC emissions from tank shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. 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
10. 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
11. Formerly permit number S-1372-366.

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-59-1

SECTION: SW 12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK

EXPIRATION DATE: 02/28/2014  
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## PERMIT UNIT REQUIREMENTS

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1. Throughput shall not exceed 500 bbl/day (monthly average). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emissions from tank shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. 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
10. 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
11. Formerly permit number S-1372-367.

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

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**San Joaquin Valley  
Air Pollution Control District**

**PERMIT UNIT:** S-1327-60-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW12 **TOWNSHIP:** 30S **RANGE:** 21E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK

**PERMIT UNIT REQUIREMENTS**

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1. Throughput shall not exceed 500 bbl/day (monthly average). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Emissions from tank shall not exceed 1.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. 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
10. 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
11. Formerly permit number S-1372-368.

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-70-1

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 100 STEAM ENHANCED WELLS SERVED BY CASING GAS COLLECTION SYSTEM (MCKITTRICK LEASE) WITH SULFATREAT H<sub>2</sub>S REMOVAL SYSTEM AND COANDA EFFECT 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 Rules 2201 and 4101] Federally Enforceable Through Title V Permit
2. Total VOC emissions shall be reduced by at least 99% by vapor control system. [District Rule 4401] Federally Enforceable Through Title V Permit
3. TEOR gas shall only be combusted in flare, combusted in steam generator S-1327-32, sent to sales gas line, or injected in DOGGR-approved disposal wells, [District Rule 2201] Federally Enforceable Through Title V Permit
4. Leaks exceeding an instrument reading of 10,000 ppmv are a violation of this permit. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
5. Fugitive VOC emissions from TEOR operation shall not exceed 3.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Flare shall be equipped with waste gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times. [District Rule 4311] Federally Enforceable Through Title V Permit
8. Total H<sub>2</sub>S concentration of gas incinerated in flare shall not exceed 4 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Maximum amount of waste gas combusted shall not exceed 350,000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Gas shall be treated to remove sulfur to 1.0 gr S/100scf using sulfa-treat system prior to being combusted in steam generator S-1327-32. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from the flare shall not exceed any of the following (based on total gas combusted): PM-10: 0.008 lb/MMBtu; NO<sub>x</sub> (as NO<sub>2</sub>): 0.068 lb/MMBtu; VOC: 0.063 lb/MMBtu; or CO: 0.37 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall determine sulfur content of scrubbed TEOR gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [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. Permittee shall implement an I&M program consistent with the requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
14. Weekly and quarterly records of the waste gas sulfur content and daily records of waste gas flow rate shall be maintained, retained on the premises for a period of at least five years, and made available for District inspection on request. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Permittee shall maintain records of the date and well identification where steam injection or well stimulation occurs, current list of all thermally enhanced production wells associated with this operation, leak inspection results, and accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
16. Each quarter in which the flare is operated for three (3) hours or more, the permittee shall perform a visible emissions inspection using either EPA Method 22 or EPA Method 9. [District Rule 2520] Federally Enforceable Through Title V Permit
17. A flame shall be present at all time when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
18. The outlet shall be equipped with an automatic ignition system, or, shall be operated with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
19. 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] Federally Enforceable Through Title V Permit
20. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
21. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 4401]
22. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
23. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
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 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] Federally Enforceable Through Title V Permit
25. 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] Federally Enforceable Through Title V Permit

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

26. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
27. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit
28. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401] Federally Enforceable Through Title V Permit
29. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit
30. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401] Federally Enforceable Through Title V Permit
31. 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] Federally Enforceable Through Title V Permit
32. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit
33. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401] Federally Enforceable Through Title V Permit
34. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
35. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
36. 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] Federally Enforceable Through Title V Permit
37. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit
38. A small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2 or Rule 4401. [District Rule 4401] 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.

39. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
40. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401] Federally Enforceable Through Title V Permit
41. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
42. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401] Federally Enforceable Through Title V Permit
43. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
44. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401] Federally Enforceable Through Title V Permit
45. Operator shall submit to the APCO not later than June 14, 2007 a list of all gauge tanks, as defined in Section 3.17. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401] Federally Enforceable Through Title V Permit
46. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401] Federally Enforceable Through Title V Permit
47. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401] Federally Enforceable Through Title V Permit
48. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401] Federally Enforceable Through Title V Permit
49. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit
50. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. [District Rule 4401] Federally Enforceable Through Title V Permit
51. An operator seeking approval pursuant to Section 6.2.2 or Section 6.2.3 shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



52. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
53. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401] Federally Enforceable Through Title V Permit
54. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit
55. 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] Federally Enforceable Through Title V Permit
56. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] Federally Enforceable Through Title V Permit
57. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit
58. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rule 1070]

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-80-1

**SECTION:** SE15 **TOWNSHIP:** 25S **RANGE:** 18E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF STOCK TANK WITH P/V VALVE

**EXPIRATION DATE:** 02/28/2014  
**DRAFT**

## PERMIT UNIT REQUIREMENTS

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1. Tank throughput shall not exceed 74 bbl per day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. VOC emission rate from this unit shall not exceed 5.2 lb/day [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. The 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
5. 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
6. 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 4623] Federally Enforceable Through Title V Permit
7. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Formerly S-2803-8-0. [District Rule]

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

**DRAFT**

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-81-1

SECTION: SE15 TOWNSHIP: 25S RANGE: 18E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED-ROOF STOCK TANK WITH P/V VALVE

EXPIRATION DATE: 02/28/2014

DRAFT

## PERMIT UNIT REQUIREMENTS

1. Tank throughput shall not exceed 74 bbl per day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. VOC emission rate from this unit shall not exceed 5.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. The 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
5. 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
6. 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 4623] Federally Enforceable Through Title V Permit
7. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623] Federally Enforceable Through Title V Permit
10. Formerly S-2803-9-0. [District Rule]

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

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**San Joaquin Valley  
Air Pollution Control District**

**PERMIT UNIT:** S-1327-82-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SE15 **TOWNSHIP:** 25S **RANGE:** 18E

**EQUIPMENT DESCRIPTION:**

100 BBL FIXED ROOF SLOP OIL TANK

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**PERMIT UNIT REQUIREMENTS**

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1. Tank throughput shall not exceed 100 gallons/day. [District Rule 2201] Federally Enforceable Through Title V Permit
2. VOC emission rate from this unit shall not exceed 0.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. 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
6. 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
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
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. 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
11. Formerly S-2803-10-0. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-83-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SE15 **TOWNSHIP:** 25S **RANGE:** 18E

**EQUIPMENT DESCRIPTION:**

83.0 MMBTU/HR AIR-ASSISTED FLARE WITH MACTRONIC-ENERFLEX FLARE TIP AND CONTINUOUS PILOT

## 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 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Emissions from this flare shall not exceed any of the following limits: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.0029 lb-SO<sub>x</sub>/MMBtu, 0.008 lb-PM<sub>10</sub>/MMBtu, 0.37 lb-CO/MMBtu, or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Total sulfur concentration of gas introduced to the flare shall not exceed 1.0 gr-S/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
5. Permittee shall measure sulfur content of gas introduced to the flare at least once every year. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
6. The flare gas sulfur concentration shall be measured using one of the following test methods: ASTM D1072, ASTM D3246, ASTM D6228 (GC-FPD), double GC for H<sub>2</sub>S and mercaptans, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The quantity of gas incinerated in this flare shall not exceed 399 MMBtu per day (equivalent to 399,000 scf per day). [District Rule 2201] Federally Enforceable Through Title V Permit
8. The flare shall be equipped with flare gas volume flow meter. [District Rule 2201] Federally Enforceable Through Title V Permit
9. A flame shall be present at all time when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
10. The outlet shall be equipped with an automatic ignition system, or, shall be operated with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
11. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311] Federally Enforceable Through Title V Permit
12. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] 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. Permittee shall maintain daily records of the volume (scf) and the sulfur content (grains/scf) of gas combusted in the flare. Such records shall be retained for a period of five years and made readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-84-1

EXPIRATION DATE: 02/28/2014

SECTION: NW15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

300 BBL FIXED ROOF CRUDE OIL WASH TANK (CHAPMAN FEE LEASE)

## PERMIT UNIT REQUIREMENTS

1. Average daily tank throughput (on a monthly basis) shall not exceed 50 bbl/day of crude oil (neglecting produced water). [District Rule 2201] Federally Enforceable Through Title V Permit
2. True vapor pressure of any organic liquid introduced or stored in this tank shall not exceed 0.17 psia. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] 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
9. The permit holder shall keep accurate records of the throughput of each crude oil stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-85-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW15 **TOWNSHIP:** 27S **RANGE:** 19E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #1 (CHAPMAN FEE LEASE)

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## PERMIT UNIT REQUIREMENTS

1. Average daily tank throughput (on a monthly basis) shall not exceed 25 bbl/day of crude oil. [District Rule 2201] Federally Enforceable Through Title V Permit
2. True vapor pressure of any organic liquid introduced or stored in this tank shall not exceed 0.09 psia. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] 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
9. The permit holder shall keep accurate records of the tank throughput and each crude oil stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
10. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-86-1

SECTION: NW15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

500-BBL FIXED ROOF CRUDE OIL STORAGE TANK #2 (CHAPMAN FEE LEASE)

EXPIRATION DATE: 02/28/2014

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## PERMIT UNIT REQUIREMENTS

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1. Average daily tank throughput (on a monthly basis) shall not exceed 25 bbl/day of crude oil. [District Rule 2201] Federally Enforceable Through Title V Permit
2. True vapor pressure of any organic liquid introduced or stored in this tank shall not exceed 0.09 psia. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623] 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
9. The permit holder shall keep accurate records of the tank throughput and each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
10. 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.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-87-1

**EXPIRATION DATE:** 02/28/2014

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

**EQUIPMENT DESCRIPTION:**

ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE RELIEF DEVICE  
(LINCOLN LEASE)

## PERMIT UNIT REQUIREMENTS

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623] Federally Enforceable Through Title V Permit
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623] Federally Enforceable Through Title V Permit
9. 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
10. 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 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-88-1

EXPIRATION DATE: 02/28/2014

SECTION: 18 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

ONE 42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10X1370 SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)

## PERMIT UNIT REQUIREMENTS

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. {2496} Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [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] Federally Enforceable Through Title V Permit
9. 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
10. 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 1070] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-89-1

EXPIRATION DATE: 02/28/2014

SECTION: 18 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

ONE 84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20X1257 SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)

## PERMIT UNIT REQUIREMENTS

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [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
9. 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
10. 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 1070] Federally Enforceable Through Title V Permit

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**San Joaquin Valley  
Air Pollution Control District**

**PERMIT UNIT:** S-1327-90-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW17 **TOWNSHIP:** 11N **RANGE:** 23W

**EQUIPMENT DESCRIPTION:**

ONE 12,600 GALLON WASH TANK SERVED BY A PRESSURE RELIEF DEVICE (HAZELTON LEASE)

**PERMIT UNIT REQUIREMENTS**

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1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [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
9. 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
10. 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 1070] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-91-1

EXPIRATION DATE: 02/28/2014

SECTION: NE17 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE VACUUM VENT  
(HAZELTON LEASE)

## PERMIT UNIT REQUIREMENTS

1. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rules 2201] Federally Enforceable Through Title V Permit
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
4. 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
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. 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
7. 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
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623] Federally Enforceable Through Title V Permit
9. 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
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. 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 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-92-1

EXPIRATION DATE: 02/28/2014

SECTION: NE17 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

300 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The true vapor pressure (TVP) of any organic liquid introduced to the tank shall not exceed 0.5 psia at liquid temperature. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. VOC emission rate from the tank shall not exceed 3.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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 2201] 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 2201] 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 2201] Federally Enforceable Through Title V Permit
8. 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 2201] Federally Enforceable Through Title V Permit
9. 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 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
11. 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 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.



12. Formerly S-1215-24-0.

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-102-1

EXPIRATION DATE: 02/28/2014

SECTION: SW 34 TOWNSHIP: 25S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1000 BBL HEATED FIXED ROOF CRUDE OIL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

1. 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 4623] Federally Enforceable Through Title V Permit
2. Tank shall be equipped with operational temperature indicator in a location that is readily accessible. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Bulk temperature of fluids stored in tank shall not exceed 200 degrees F. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Throughput shall not exceed 100 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.4 psia under all storage conditions. [District Rules 2201 and 4623] 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 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
8. 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
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
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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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.

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-103-1

**SECTION:** SW 34 **TOWNSHIP:** 25S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1000 BARREL FIXED ROOF CRUDE OIL STORAGE TANK

**EXPIRATION DATE:** 02/28/2014

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## PERMIT UNIT REQUIREMENTS

1. 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 4623] Federally Enforceable Through Title V Permit
2. Tank shall be equipped with operational temperature indicator in a location that is readily accessible. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Bulk temperature of fluids stored in tank shall not exceed 200 degrees F. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Average daily tank throughput (on monthly basis) shall not exceed 500 bbl/day of fluid. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store or hold liquid with a true vapor pressure (TVP) of less than 0.45 psia under all storage conditions. [District Rules 2201 and 4623] 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 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
8. 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
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
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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-104-1

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF WASH TANK (THETA LEASE)

EXPIRATION DATE: 02/28/2014

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## PERMIT UNIT REQUIREMENTS

1. This tank shall be equipped with a pressure vacuum (PV) relief valve. This valve shall be set within ten percent of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PV relief valve shall be permanently labeled with the operating pressure settings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. PV relief valve shall be maintained in good operating order in accordance with manufacturer's instructions and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The true vapor pressure of the liquid stored in this tank shall not exceed 0.2 psia under all storage conditions. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The API gravity of an organic liquid stored in this tank shall be less than 26 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The average throughput shall not exceed 150 barrels per day when calculated using monthly throughput records. [District Rule 2201] Federally Enforceable Through Title V Permit
7. TVP and API gravity test shall be conducted at least once every 24 months thereafter during summer (July - September). [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
10. {2911} 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]
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. This tank shall meet VOC control requirements of Rule 4623 if TVP equals or exceeds 0.5 psia. [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.

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13. Permittee shall maintain monthly records of throughput to demonstrate compliance with average daily throughput limit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-105-1

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (THETA LEASE)

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## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. 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
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-106-1

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF PETROLEUM STORAGE TANK (WEST COAST LEASE)

## PERMIT UNIT REQUIREMENTS

1. This tank shall be equipped with a pressure vacuum (PV) relief valve. This valve shall be set within ten percent of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PV relief valve shall be permanently labeled with the operating pressure settings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. PV relief valve shall be maintained in good operating order in accordance with manufacturer's instructions and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The true vapor pressure of the liquid stored in this tank shall not exceed 0.2 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. The API gravity of an organic liquid stored in this tank shall be less than 26 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The average throughput shall not exceed 150 barrels per day when calculated using monthly throughput records. [District Rule 2201] Federally Enforceable Through Title V Permit
7. TVP and API gravity test shall be conducted at least once every 24 months thereafter during summer (July - September). [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
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. This tank shall meet VOC control requirements of Rule 4623 if TVP equals or exceeds 0.5 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
12. Permittee shall maintain monthly records of throughput to demonstrate compliance with average daily throughput limit. [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. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-107-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SE02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1,500 BBL FIXED ROOF WASH TANK (WILLIAMSON LEASE)

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## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. VOC fugitive emissions from components in gas service shall not exceed 11.7 lb/day. Fugitive component count and leak emissions are to be calculated using "Oil and Gas Production Operations Average Emission Factors, EPA Protocol for Equipment Leak Emission Factors, November 1995 (EPA-453/R-95-017). [District Rule 2201] Federally Enforceable Through Title V Permit
7. Maximum VOC content of total organic gases (TOG) shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit accurate fugitive component counts for the tank and associated equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
9. 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
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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11. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-108-1

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (WILLIAMSON LEASE, TANK #1)

## PERMIT UNIT REQUIREMENTS

1. This tank shall be equipped with a pressure vacuum (PV) relief valve. This valve shall be set within ten percent of the maximum allowable working pressure of the tank. [District Rule 2201] Federally Enforceable Through Title V Permit
2. PV relief valve shall be permanently labeled with the operating pressure settings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. PV relief valve shall be maintained in good operating order in accordance with manufacturer's instructions and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The true vapor pressure of the liquid stored in this tank shall not exceed 0.2 psia under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. The API gravity of an organic liquid stored in this tank shall be less than 26 degrees. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The average throughput shall not exceed 150 barrels per day when calculated using monthly throughput records. [District Rule 2201] Federally Enforceable Through Title V Permit
7. TVP and API gravity test shall be conducted at least once every 24 months thereafter during summer (July - September). [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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. This tank shall meet VOC control requirements of Rule 4623 if TVP equals or exceeds 0.5 psia. [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.

13. Permittee shall maintain monthly records of throughput to demonstrate compliance with average daily throughput limit. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-109-1

EXPIRATION DATE: 02/28/2014

SECTION: SE2 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH TRUCK LOADOUT (WILLIAMSON LEASE, TANK #2)

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Daily throughput of oil shall not exceed 101 barrels per day, on a monthly average basis. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Daily throughput of oil shall not exceed 303 barrels per day, on a daily maximum basis. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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 4623] Federally Enforceable Through Title V Permit
5. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
6. 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
7. 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
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623] Federally Enforceable Through Title V Permit
9. All records required to be maintained by this permit shall be maintained for a period of at least 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.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-110-2

EXPIRATION DATE: 02/28/2014

SECTION: NW11 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

TEOR OPERATION WITH 500 CYCLIC WELLS, GAS/OIL SEPARATOR, VACUUM PUMP, CASING GAS COLLECTION SYSTEM, SULFATREAT SYSTEM, PIPING TO DOGGR APPROVED GAS INJECTION WELLS, DUCT WORK TO FOUR HEATER TREATERS WITH PERMIT-EXEMPT BURNERS (5 MMBTU/HR OR LESS) AND/OR DISTRICT PERMITTED STEAM GENERATORS

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. All casing vents shall be connected to casing vent incineration system or shall be closed and plugged with produced fluids piped to gas/oil separator with gas connected to an incineration system or shall be connected to District approved steam generator intended for combusting casing gas. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit
3. TEOR operation is authorized to receive vapors from tank vapor control system S-1327-126. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The VOC content of hydrocarbons in gas processed from the cyclic steam enhanced wells shall be less than or equal to 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The content of hydrocarbons heavier than butane in the gas processed from the cyclic steam enhanced wells shall be less than 5% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The gas sulfur content, at the outlet of the SulfaTreat system, shall not exceed 1.0 grains/scf. [District Rule 2201 and 2280] Federally Enforceable Through Title V Permit
7. Permittee shall sample and record the VOC content of hydrocarbons and the content of hydrocarbons heavier than butane in the gas processed from steam enhanced wells at least once every 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of the gas processed shall be determined using the latest version of ASTM Method E168, E169, or E260 or using an equivalent APCO and EPA approved Method. Halogenated exempt compounds shall be determined using CARB Method 432 or using an equivalent APCO and EPA approved Method. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Content of hydrocarbons heavier than butane shall be determined using ASTM Method E-260-73 or using an equivalent APCO and EPA approved Method. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall sample and record the sulfur content of the gas processed at the outlet of the SulfaTreat system on a weekly basis. If the gas sulfur content is less than or equal to 1.0 grains/dscf for 8 consecutive weeks, the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel content exceedance, weekly monitoring shall resume. [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.



11. Sulfur content of the gas processed shall be determined using ASTM Method D-1072-80 or using an equivalent APCO and EPA approved Method. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407] Federally Enforceable Through Title V Permit
13. Permittee shall keep and maintain a record of all VOC content sampling results, content of hydrocarbons heavier than butane sampling results, and sulfur content sampling results. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
15. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] 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] 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] Federally Enforceable Through Title V Permit
18. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.6.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.9 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
19. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit
20. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401] Federally Enforceable Through Title V Permit
21. Except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401] Federally Enforceable Through Title V Permit
22. An operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] 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. In addition to the inspections required by Section 5.8.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
24. In addition to the inspections required by Sections 5.8.1, 5.8.2 and 5.8.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.8.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit
25. An operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit
26. 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] Federally Enforceable Through Title V Permit
27. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit
28. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and 5.9.2.3 of Rule 4401, or the component is found to be in compliance with the requirements of this rule. [District Rule 4401] Federally Enforceable Through Title V Permit
29. 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] Federally Enforceable Through Title V Permit
30. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.9.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit
31. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401] 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 3 of Rule 4401. [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 3 of Rule 4401. [District Rule 4401] 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.

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] Federally Enforceable Through Title V Permit
35. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit
36. A small producer shall maintain monthly records of county-specific crude oil production. For the purpose of this rule, the monthly crude oil production records required by the California Division of Oil, Gas, and Geothermal Resources may be used to satisfy Section 6.1.2 or Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
37. An operator of any steam-enhanced crude oil production well shall keep source test records which demonstrate compliance with the control efficiency requirements of the VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
38. The results of source tests conducted pursuant to Section 4.6.2 of Rule 4401 shall be submitted to the APCO within 60 days after the completion of the source test. [District Rule 4401] Federally Enforceable Through Title V Permit
39. Operator of any steam-enhanced crude oil production well shall keep an inspection log maintained pursuant to Section 6.4 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
40. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401] Federally Enforceable Through Title V Permit
41. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
42. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401] Federally Enforceable Through Title V Permit
43. Operator shall submit to the APCO not later than June 14, 2007 a list of all gauge tanks, as defined in Section 3.17. The list shall contain the size, identification number, the location of each gauge tank and specify whether the gauge tank is upstream of all front line production equipment. [District Rule 4401] Federally Enforceable Through Title V Permit
44. The results of gauge tank TVP testing conducted pursuant to Section 6.2.5 shall be submitted to the APCO within 60 days after the completion of the testing. [District Rule 4401] Federally Enforceable Through Title V Permit
45. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401] Federally Enforceable Through Title V Permit
46. An operator shall source test annually all vapor collection and control systems used to control emissions from steam-enhanced crude oil production well vents to determine the control efficiency of the device(s) used for destruction or removal of VOC. Compliance testing shall be performed annually by source testers certified by ARB. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. [District Rule 4401] Federally Enforceable Through Title V Permit
47. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 if all uncondensed VOC emissions collected by a vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine or in a smokeless flare. [District Rule 4401] 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.

48. If approved by EPA, ARB, and the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 for a vapor control system which does not have a VOC destruction device. [District Rule 4401] Federally Enforceable Through Title V Permit
49. An operator seeking approval pursuant to Section 6.2.2 or Section 6.2.3 shall submit a written request and supporting information to the APCO. The District shall evaluate the request and if approved by the APCO, the District shall provide EPA and ARB with a copy of the evaluation and shall request EPA and ARB approval. The District evaluation and the APCO request shall be deemed approved unless EPA or ARB objects to such approval in writing within 45 days of the receipt of the APCO request. [District Rule 4401] Federally Enforceable Through Title V Permit
50. An operator shall comply with the following requirements for each gauge tank, as defined in Section 3.17 of Rule 4401: Conduct an initial TVP testing of the produced fluid in each gauge tank not later than June 14, 2007. Thereafter, an operator shall conduct periodic TVP testing of each gauge tank at least once every 24 months during summer (July - September), and whenever there is a change in the source or type of produced fluid in the gauge tank. The TVP testing shall be conducted at the actual storage temperature of the produced fluid in the gauge tank using the applicable TVP test method specified in Section 6.4 of Rule 4623 (Storage of Organic Liquids). The operator shall submit the TVP testing results to the APCO as specified in Section 6.1.10 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit
51. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401] Federally Enforceable Through Title V Permit
52. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit
53. 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] Federally Enforceable Through Title V Permit
54. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401] 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.

55. Operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit
56. The operator shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit
57. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4401] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-111-1

EXPIRATION DATE: 02/28/2014

SECTION: SW02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (ENRON-UNITED LEASE)

## PERMIT UNIT REQUIREMENTS

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1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall operate at constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Throughput shall not exceed 2500 barrels per day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC fugitive emissions from components in gas service shall not exceed 11.6 lb/day. Fugitive component count and leak emissions are to be calculated using "Oil and Gas Production Operations Average Emission Factors, EPA Protocol for Equipment Leak Emission Factors, November 1995 (EPA-453/R-95-017). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum VOC content of total organic gases (TOG) shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
8. 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
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] 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 maintain with the permit accurate fugitive component counts for the tank and associated equipment. [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.

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] 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-112-1

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH A P/V RELIEF VALVE (ENRON-UNITED LEASE)

## PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.31 psia or less under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
3. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emission rate from the tank shall not exceed 13.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
6. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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



11. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-114-1

EXPIRATION DATE: 02/28/2014

SECTION: SW34 TOWNSHIP: 25S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL CRUDE OIL STORAGE TANK WITH A P/V RELIEF VALVE

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## PERMIT UNIT REQUIREMENTS

1. 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 4623] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
4. Tank shall operate at constant level. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
6. Throughput shall not exceed 2500 barrels per day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
8. 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
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
10. The operator shall keep accurate records of throughput, types and TVP of liquids stored. [District Rule 1070] Federally Enforceable Through Title V Permit

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

11. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-115-1

EXPIRATION DATE: 02/28/2014

SECTION: SE2 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH A PV RELIEF VALVE

## PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Tank shall be equipped with an accurate, operational stored liquid temperature indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Temperature of liquid stored shall not exceed 180 °F. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.31 psia or less under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Crude oil throughput shall not exceed 435 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from the tank shall not exceed 15.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. 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 Rules 2201 and 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-116-1

SECTION: SE2 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

NON-COMPLIANT DORMANT 25 MMBTU/HR NATURAL GAS/LPG FIRED STEAM GENERATOR, WITH MAXON KINEDIZER LOW NOX BURNER AND SMARTFIRE CONTROLLER

EXPIRATION DATE: 02/28/2014  
**DRAFT**

## PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4306] Federally Enforceable Through Title V Permit
4. Daily heat input shall not exceed 528 MMBtu. Permittee shall maintain records of daily heat input and shall make such records available for District inspection. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed the following: NOx (as NO<sub>2</sub>): 0.036 lb/MMBtu or 30 ppmv @ 3% O<sub>2</sub>, CO: 0.0813 lb/MMBtu or 110 ppmv @ 3% O<sub>2</sub>, VOC: 0.0055 lb/MMBtu, and PM<sub>10</sub>: 4.0 lb/day. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit
6. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted within 60 days of initial firing on natural gas. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit
7. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted within 60 days of initial firing on LPG. [District Rules 2201 and 4305] Federally Enforceable Through Title V Permit
8. Sulfur content of the natural gas and LPG shall not exceed 15 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070] Federally Enforceable Through Title V Permit
10. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070] Federally Enforceable Through Title V Permit
11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305] 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. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NO<sub>x</sub> and CO. [District Rule 4305] Federally Enforceable Through Title V Permit
13. Source testing to measure NO<sub>x</sub> and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rule 4305] Federally Enforceable Through Title V Permit
14. Source testing to measure NO<sub>x</sub> and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 4305] Federally Enforceable Through Title V Permit
15. If permittee fails any compliance demonstration for NO<sub>x</sub> or CO emission limits when testing not less than once every 36 months, compliance with NO<sub>x</sub> and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 4305] Federally Enforceable Through Title V Permit
16. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
17. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
18. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit
19. 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 Rule 4305] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305] Federally Enforceable Through Title V Permit
22. 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 4305] Federally Enforceable Through Title V Permit
23. Permittee shall maintain records of fuel gas sulfur concentration. [District Rule 1070] Federally Enforceable Through Title V Permit
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4305] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-117-1

EXPIRATION DATE: 02/28/2014

SECTION: SW02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)

## PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall be 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 leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from the tank shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-118-1

EXPIRATION DATE: 02/28/2014

SECTION: SW02 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)

## PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall be 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 leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from the tank shall not exceed 4.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-121-1

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16' H) (WILLIAMSON II LEASE)

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than or equal to 0.1 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. This tank shall be operated as a constant level tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Tank throughput shall not exceed 200 barrels of crude oil per day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC emissions shall not exceed 0.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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
6. 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
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623] Federally Enforceable Through Title V Permit
8. 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
9. 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
10. Permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, daily throughput, and results of TVP and API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
11. 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.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-122-1

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H ) (WILLIAMSON II LEASE)

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than or equal to 0.1 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank throughput shall not exceed 100 barrels of total throughput per day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emissions shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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
5. 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
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
9. Permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, daily throughput, and results of TVP and API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
10. 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.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-123-1

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16'H) (WILLIAMSON II LEASE)

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than or equal to 0.1 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Tank throughput shall not exceed 100 barrels of total throughput per day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC emissions shall not exceed 1.7 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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
5. 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
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
9. Permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, daily throughput, and results of TVP and API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
10. 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.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-124-1

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16'H) (THETA LEASE)

## PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall be 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 leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
5. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC emission rate from the tank shall not exceed 4.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
10. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-125-1

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16'H) (THETA LEASE)

EXPIRATION DATE: 02/28/2014

DRAFT

## PERMIT UNIT REQUIREMENTS

1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall be operated as a constant level tank. [District Rule 2201] Federally Enforceable Through Title V Permit
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Crude oil throughput shall not exceed 450 barrels per day based on a monthly average. [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC emission rate from the tank shall not exceed 2.0 lb/day. [District Rule 2201] 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 Rules 2201 and 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. 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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
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 Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-126-2

EXPIRATION DATE: 02/28/2014

SECTION: NW 2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH VAPOR CONTROL SYSTEM AND SULFATREAT H2S REMOVAL SYSTEM ROUTED TO DOGGR-APPROVED DISPOSAL WELLS OR DISTRICT PERMITTED STEAM GENERATORS

## PERMIT UNIT REQUIREMENTS

1. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
2. Vapor control system includes piping from sulfur scrubbers to any District permitted steam generator(s) at this facility as long as the permittee keep records of the permit number to which the vapor control system is connected. Vapor control system includes bypass piping around sulfur scrubbers to DOGGR-approved vapor disposal well(s) and TEOR operations S-1327-110 and '-161. [District Rule 2201]
3. Vapors from vapor control system shall not vent to atmosphere during recharging of the scrubber. [District Rule 2201]
4. Collected vapors shall be disposed of in District permitted steam generator(s) intended for combusting the vapors or approved incineration devices, or in Department of Oil, Gas and Geothermal Resources (DOGGR) approved vapor disposal wells. Permittee shall make documentation of DOGGR approval for injection wells readily available for District inspection upon request. [District Rule 2201]
5. {2480} This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 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 Rules 2201 and 4623]
8. 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 Rules 2201 and 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 2201]
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 Rules 2201 and 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 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
13. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]
14. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
15. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201]
16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2201]
17. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District Rule 2201]
18. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2201]
19. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2201]
20. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2201]
21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201]
22. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2201]

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

23. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201]
24. Permittee shall maintain a written record of scrubber recharging dates. [District Rule 2201]
25. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080]
26. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080]
27. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080]
28. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080]
29. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080]
30. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080]
31. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080]
32. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-127-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK T-351 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1327-126

## PERMIT UNIT REQUIREMENTS

1. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 2201] Federally Enforceable Through Title V Permit
4. 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 2201] Federally Enforceable Through Title V Permit
5. 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 2201] Federally Enforceable Through Title V Permit
6. 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 2201] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [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.

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
12. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080] Federally Enforceable Through Title V Permit
13. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
14. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
15. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
16. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-128-1

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL SLOP TANK T-361 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1327-126

## PERMIT UNIT REQUIREMENTS

1. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 2201] Federally Enforceable Through Title V Permit
4. 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 2201] Federally Enforceable Through Title V Permit
5. 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 2201] Federally Enforceable Through Title V Permit
6. 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 2201] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [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.

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
12. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080] Federally Enforceable Through Title V Permit
13. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
14. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
15. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
16. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-129-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

10,000 BBL FIXED ROOF CRUDE OIL SLOP TANK T-362 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1327-126

## PERMIT UNIT REQUIREMENTS

1. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 2201] Federally Enforceable Through Title V Permit
4. 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 2201] Federally Enforceable Through Title V Permit
5. 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 2201] Federally Enforceable Through Title V Permit
6. 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 2201] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [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.

11. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
12. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080] Federally Enforceable Through Title V Permit
13. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
14. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
15. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
16. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-130-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** T26S **RANGE:** R20E

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #1)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-131-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #2)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-132-1

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #3)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. Source testing to measure PM<sub>10</sub> shall be conducted using either: EPA Method 201 or 201A, and 202; or CARB Method 5 in combination with 501. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201] Federally Enforceable Through Title V Permit
24. In lieu of performing a source test for PM<sub>10</sub>, the results of the total particulate test may be used for compliance with the PM<sub>10</sub> emissions limit provided the results include both the filterable and condensable (back half) particulate, and that all particulate matter is assumed to be PM<sub>10</sub>. Source testing to measure concentrations of total particulate emissions shall be conducted using EPA method 5. [District Rule 2201] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
28. 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-133-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** T26S **RANGE:** R20E

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #4)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-134-1

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #5)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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



21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-135-1

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #6)

## 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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-136-1

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #7)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
4. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Source testing to measure fuel 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, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-137-1

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

25 MMBTU/HR NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR EQUIPPED WITH GIDEON MODEL MGW-25 LOW NOX BURNER, FGR, AND AIR/FUEL RATIO CONTROLLER

## PERMIT UNIT REQUIREMENTS

1. The steam generator is approved to be operated at the following locations: Sections 2, 3, 11, 12, T26S/R20E; and Sections 33, 34, T25S/R20E [District Rule 2201] Federally Enforceable Through Title V Permit
2. The unit shall not be located within 1,000 feet of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division in writing of each location at which this steam generator is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The unit shall only be fired on natural gas, LPG, or waste gas. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.018 lb-NO<sub>x</sub>/MMBtu, 0.0164 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.036 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070] Federally Enforceable Through Title V Permit
10. If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070] Federally Enforceable Through Title V Permit
11. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



12. 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] Federally Enforceable Through Title V Permit
13. 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] Federally Enforceable Through Title V Permit
14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. During the 36-month source testing interval, the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306] 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] Federally Enforceable Through Title V Permit
18. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of natural gas to steam generator. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
19. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of waste gas to steam generator. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
20. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of LPG to steam generator. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
24. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The permittee shall maintain records of each location at which the equipment was operated, the dates operated at each location, and the hours of operation at each location. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit
30. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-138-1

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

25 MMBTU/HR NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR EQUIPPED WITH GIDEON MODEL MGW-25 LOW NOX BURNER, FGR, AND AIR/FUEL RATIO CONTROLLER

## PERMIT UNIT REQUIREMENTS

1. The steam generator is approved to be operated at the following locations: Sections 2, 3, 11, 12, T26S/R20E; and Sections 33, 34, T25S/R20E [District Rule 2201] Federally Enforceable Through Title V Permit
2. The unit shall not be located within 1,000 feet of any K-12 school. [CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division in writing of each location at which this steam generator is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. 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
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. The unit shall only be fired on natural gas, LPG, or waste gas. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.018 lb-NO<sub>x</sub>/MMBtu, 0.0164 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.036 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070] Federally Enforceable Through Title V Permit
11. If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070] Federally Enforceable Through Title V Permit
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
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] Federally Enforceable Through Title V Permit
17. During the 36-month source testing interval, the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306] Federally Enforceable Through Title V Permit
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
19. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of natural gas to steam generator. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
20. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of waste gas to steam generator. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
21. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of LPG to steam generator. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
23. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
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] 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. The permittee shall maintain records of each location at which the equipment was operated, the dates operated at each location, and the hours of operation at each location. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO<sub>x</sub> emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO<sub>x</sub> emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit
30. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit
31. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-139-1

SECTION: NE03 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

ONE 500 BBL FIXED ROOF PETROLEUM STORAGE TANK #1 (THETA LEASE)

EXPIRATION DATE: 02/28/2014  
**DRAFT**

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1] Federally Enforceable Through Title V Permit
7. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1] 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
9. 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
10. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-140-1

SECTION: NE03 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

ONE 250 BBL FIXED ROOF CRUDE OIL WASH TANK #2 (THETA LEASE)

EXPIRATION DATE: 02/28/2014

DRAFT

## PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank 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
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623] Federally Enforceable Through Title V Permit
6. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1] Federally Enforceable Through Title V Permit
7. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1] 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
9. 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
10. 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.

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-146-1

EXPIRATION DATE: 02/28/2014

SECTION: NW02 TOWNSHIP: 26S RANGE: 20e

## EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK T-120 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1326-126

## PERMIT UNIT REQUIREMENTS

1. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. 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 2201] Federally Enforceable Through Title V Permit
4. 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 2201] Federally Enforceable Through Title V Permit
5. 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 2201] Federally Enforceable Through Title V Permit
6. 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 2201] Federally Enforceable Through Title V Permit
7. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [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.



11. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit
12. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080] Federally Enforceable Through Title V Permit
13. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit
14. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
15. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080] Federally Enforceable Through Title V Permit
16. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit
17. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit
18. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-155-3

EXPIRATION DATE: 02/28/2014

SECTION: 2 & 11 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HOUR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER (OR EQUIVALENT) WITH FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #8)

## PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Authorized locations for this equipment are 1/4 Sections NE11 and NW02 of T26S, R20E [District Rule 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
15. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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 2201, 4305, 4306, and 4320] 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
18. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
19. 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
20. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
24. 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
25. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320] 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, 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-159-1

EXPIRATION DATE: 02/28/2014

SECTION: NW02 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

30,000 GALLON FIXED ROOF HYDROCHLORIC ACID (HCL) STORAGE TANK VENTED THROUGH A FUME SCRUBBER SHARED WITH S-1326-160, #T-651

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Tank throughput shall not exceed 10,000 gallons of hydrochloric acid solution per day. [District Rule 4102] Federally Enforceable Through Title V Permit
3. Tank shall not receive liquids or solutions containing volatile organic compounds (VOC). [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Tank shall only vent to packed column hydrochloric acid fume scrubber shared with tank S-1327-160. [District Rule 4102] Federally Enforceable Through Title V Permit
5. Packed column water supply pump shall deliver once through tap water and operate continuously at a rate of no less than 4 gpm when filling either tank S-1327-159 or '-160. [District Rule 4102] Federally Enforceable Through Title V Permit
6. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102] Federally Enforceable Through Title V Permit
7. Operator shall keep records of the chemical composition and volume of all liquids received by the tank. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201, 4102, and 4623] Federally Enforceable Through Title V Permit

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

San Joaquin Valley  
Air Pollution Control District

PERMIT UNIT: S-1327-160-1

EXPIRATION DATE: 02/28/2014

SECTION: NW02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

30,000 GALLON FIXED ROOF HYDROCHLORIC ACID (HCL) STORAGE TANK VENTED THROUGH A FUME SCRUBBER SHARED WITH S-1326-159 #T-652

**PERMIT UNIT REQUIREMENTS**

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1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
2. Tank throughput shall not exceed 10,000 gallons of hydrochloric acid solution per day. [District Rule 4102] Federally Enforceable Through Title V Permit
3. Tank shall not receive liquids or solutions containing volatile organic compounds (VOC). [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Tank shall only vent to packed column hydrochloric acid fume scrubber shared with tank S-1327-159. [District Rule 4102] Federally Enforceable Through Title V Permit
5. Packed column water supply pump shall deliver once through tap water and operate continuously at a rate of no less than 4 gpm when filling either tank S-1327-159 or '-160. [District Rule 4102] Federally Enforceable Through Title V Permit
6. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102] Federally Enforceable Through Title V Permit
7. Operator shall keep records of the chemical composition and volume of all liquids received by the tank. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201, 4102, and 4623] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-169-1

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

## EQUIPMENT DESCRIPTION:

750 BBL FIXED ROOF WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1327-170, '-171, '-172 AND '-173 INCLUDING HEAT EXCHANGER, HEATER TREATER, COMPRESSOR(S), TWO COMPRESSORS DRIVEN BY PERMIT-EXEMPT IC ENGINES, AN H2S SCRUBBER AND A 21.6 MMBTU/HR SONIC FLARE

## PERMIT UNIT REQUIREMENTS

1. Operation may include permit exempt heater treater and water heater which shall only be fired on LPG or natural gas containing no more than 1.0 gr S/100scf and no more than 5% by weight hydrocarbons heavier than butane. [District Rule 2020] Federally Enforceable Through Title V Permit
2. Collected sludge from water treatment facility shall be stored and handled in a manner that will not cause or allow evaporation of VOC to the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
3. 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
4. Vapor control system shall serve S-1327-169, '-170, '-171, '-172, '-173, and 76 bbl heater treater. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
6. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
7. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The tank and tank vapor recovery system, including all piping, valves, and fittings shall be maintained in a leak-free condition. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201] Federally Enforceable Through Title V Permit
10. This tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and sends to a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control devices shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4 of District Rule 4623 and/or injection into DOGGR-approved disposal well. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
17. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
18. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
19. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
20. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
21. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 1.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Uncondensed vapors shall be incinerated in the flare and/or injected into DOGGR-approved disposal well. [District Rule 2201] Federally Enforceable Through Title V Permit
23. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] 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. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
26. Flare shall be equipped with waste gas volume flow metering system. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
28. Maximum amount of waste gas combusted shall not exceed 21.458 MMBtu/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Sulfur content of produced flared gas shall not exceed 1.0 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Flare emissions shall not exceed any of the following: 0.068 lb-NOx/MMBtu, 0.008 lb-PM10/MMBtu, 0.370 lb-CO/MMBtu, or 0.063 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Operator shall conduct quarterly sampling of the sulfur content of the gas flared. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H2S and mercaptans or Draeger tube analysis. Sulfur content of waste 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
34. Records of the waste gas sulfur content and daily records of waste gas flow rate shall be maintained, retained on the premises, and made available for District inspection on request. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
36. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
37. Formerly S-3100-3. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-170-1

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF CRUDE OIL SHIPPING TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)

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## PERMIT UNIT REQUIREMENTS

1. Tank shall only vent to vapor control system listed on S-1327-169. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rules 2201 4623] Federally Enforceable Through Title V Permit
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

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

10. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
17. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
19. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
21. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
22. Formerly S-3100-4. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-171-1

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED CONE ROOF PRODUCTION/SHIPPING TANK (21 .5 FT X 16 FT) WITH P/V VENT CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT UNIT S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

1. Tank shall vent only to vapor control system listed on S-1327-169. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.21 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall only vent to a vapor recovery system. The vapor recovery system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4 of District Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
10. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Formerly S-3100-9. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-172-1

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

## EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF STOCK TANK T-130-B SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

1. Tank shall only vent to vapor control system listed on S-1327-169. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rules 2201 4623] Federally Enforceable Through Title V Permit
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
17. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
19. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
21. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
22. Formerly S-3100-11. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-173-1

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

## EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF STOCK TANK T-130-A SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

1. Tank shall only vent to vapor control system listed on S-1327-169. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.1 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rules 2201 4623] Federally Enforceable Through Title V Permit
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



10. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
11. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
12. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
13. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
14. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
15. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
16. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
17. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020] Federally Enforceable Through Title V Permit
19. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623] Federally Enforceable Through Title V Permit
20. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
21. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
22. Formerly S-3100-12. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-174-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW35 **TOWNSHIP:** 11N **RANGE:** 21W

**EQUIPMENT DESCRIPTION:**

250-BHP CUMMINS MODEL QSB7-G3 NR3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE  
POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, 40 CFR Part 60 Subpart IIII] Federally Enforceable Through Title V Permit
6. Emissions from this IC engine shall not exceed any of the following limits: 1.85 g-NOx/bhp-hr, 0.85 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. Emissions from this IC engine shall not exceed 0.09 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201] Federally Enforceable Through Title V Permit
8. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII] Federally Enforceable Through Title V Permit
9. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
10. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
11. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract [District Rule 4702] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115 and 40 CFR Part 60 Subpart III] Federally Enforceable Through Title V Permit
14. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
15. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. Formerly S-3100-15. [District Rule]

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-175-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW35 **TOWNSHIP:** 11N **RANGE:** 21W

**EQUIPMENT DESCRIPTION:**

UP TO FOUR INSITU COMBUSTION WELLS SERVED BY VAPOR CONTROL SYSTEM

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## PERMIT UNIT REQUIREMENTS

1. All components shall be maintained in good working condition. [District Rule 4407] Federally Enforceable Through Title V Permit
2. Casing vents of the 4 in-situ combustion wells will be piped into a casing header which is connected to the gas scrubber, flare and/or blanket gas and fuel system. [District Rules 2201 and 4407] Federally Enforceable Through Title V Permit
3. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
5. Leaks shall be inspected and repaired as specified in Rule 4407. [District Rule 4407] Federally Enforceable Through Title V Permit
6. Operator shall visually inspect for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. [District Rules 2201 and 4407] Federally Enforceable Through Title V Permit
7. A leak is defined as a reading as methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm, when measured at the surface of the component interface where leakage could occur, with a portable hydrocarbon detection instrument calibrated with methane, or a dripping of liquid organic compounds at a rate of three (3) drops or more per minute. A gas leak in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4407] Federally Enforceable Through Title V Permit
8. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201] Federally Enforceable Through Title V Permit
9. VOC fugitive emissions from the well components in gas service and vapor control system piping shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using District approved emission factors from EPA Protocol for Equipment Emission Estimates Table 2-4. [District Rule 1070 & 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. The operator shall maintain records of operations of each well undergoing stimulation including well number and location, well stimulation start-up and shut down dates, and list of equipment operated, on a monthly basis. [District Rule 4407] Federally Enforceable Through Title V Permit
12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The operator shall maintain an inspection and maintenance log which contains the date of each inspection, the date of discovery of leaking components, and the date of repair. [District Rule 4407] Federally Enforceable Through Title V Permit
14. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
15. Formerly S-3100-16. [District Rule]

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

DRAFT

# **Attachment A**

## **Equipment Listing**

**Detailed Facility Report**  
For Facility=1327 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

VINTAGE PRODUCTION CALIFORNIA LLC HEAVY OIL WESTERN, KERN COUNTY CA	FAC # STATUS TELEPHONE	S.1327 A	TYPE TOXIC ID	TitleV 50183	EXPIRE ON: AREA: INSP. DATE:	02/28/2014 9/ 12/12
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1327-32-3	36 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	36 MMBTU/HR NATURAL/TEOR GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME ULTRA LOW-NOX BURNER AND FLUE GAS RECIRCULATION
S-1327-34-7	23 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	23.0 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (HSG #29; DIS# 21004-66) WITH NORTH AMERICAN BURNER AND FLUE GAS RECIRCULATION: AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE WESTERN HEAVY OIL STATIONARY SOURCE
S-1327-35-2	62.5 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	62.5 MMBTU/HR TEOR/NATURAL GAS-FIRED STRUTHERS STEAM GENERATOR WITH NORTH AMERICAN MAGNAFLAME 4231-G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION. (NORTH ANTELOPE LEASE OR HSG-179 MCKITTRICK)
S-1327-36-0	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK (#26738)
S-1327-37-0	126,000 GALLONS	3020-05 E	1	246.00	246.00	A	3,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, WASH TANK
S-1327-38-0	84,000 GALLONS	3020-05 D	1	185.00	185.00	A	2,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK (#26L39)
S-1327-41-1	4.25 MMBtu/hr	3020-02 F	1	607.00	607.00	A	4.25 MMBTU/HR GAS-FIRED HEATER TREATER CONSISTING OF TWO BURNERS EACH RATED 1.75 MMBTU/HR AND ONE BURNER RATED AT 0.75 MMBTU/HR (NORTH ANTELOPE HILLS)
S-1327-42-9	200 wells	3020-09 A	200	9.34	1,868.00	A	TEOR OPERATION WVVC SYSTEM INCLUDING 200 STEAM DRIVE WELLS, HEAT EXCHANGER (OPTIONAL), GAS/LIQUID SEPARATOR, VACUUM PUMP SKID, SULFUR REMOVAL SYSTEM, AND COMPRESSED VAPOR PIPING TO DISTRICT APPROVED INCINERATION/DISPOSAL DEVICES LISTED ON PERMIT S-1327-32, '-34, '-35, '-71, '-72, AND 10.42 MMBTU/HR COANDA EFFECT SMOKELESS FLARE WITH NATURAL GAS/PROPANE PILOT
S-1327-55-0	22,008 GALLONS	3020-05 C	1	135.00	135.00	A	524 BBL FIXED ROOF CRUDE OIL STORAGE TANK
S-1327-56-0	32,970 Gallon tank	3020-05 C	1	135.00	135.00	A	785 BBL FIXED ROOF CRUDE OIL STORAGE TANK
S-1327-57-0	42,000 Gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK
S-1327-58-0	63,000 gallons	3020-05 D	1	185.00	185.00	A	1,500 BBL FIXED-ROOF CONSTANT LEVEL CRUDE OIL WASH TANK
S-1327-59-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK
S-1327-60-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK
S-1327-70-0	100 wells	3020-09 A	100	9.34	934.00	A	THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 100 STEAM ENHANCED WELLS SERVED BY CASING GAS COLLECTION SYSTEM (MCKITTRICK LEASE) WITH SULFATREAT H2S REMOVAL SYSTEM AND COANDA EFFECT FLARE
S-1327-80-0	21,000 gallons	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF STOCK TANK WITH P/V VALVE

**Detailed Facility Report**  
For Facility=1327 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1327-81-0	21,000 gallons	3020-05 C	1	135.00	135.00	A	500 BBL FIXED-ROOF STOCK TANK WITH P/V VALVE
S-1327-82-0	4,200 gallons	3020-05 A	1	75.00	75.00	A	100 BBL FIXED ROOF SLOP OIL TANK
S-1327-83-0	83.0 MMBtu/hr flare	3020-02 H	1	1,030.00	1,030.00	A	83.0 MMBTU/HR AIR-ASSISTED FLARE WITH MACTRONIC-ENERFLEX FLARE TIP AND CONTINUOUS PILOT
S-1327-84-0	12,600 GALLON STATIONARY CONTAINER	3020-05 B	1	93.00	93.00	A	300 BBL FIXED ROOF CRUDE OIL WASH TANK (CHAPMAN FEE LEASE)
S-1327-85-0	21,000 GALLON STATIONARY CONTAINER	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #1 (CHAPMAN FEE LEASE)
S-1327-86-0	21,000 GALLON STATIONARY CONTAINER	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #2 (CHAPMAN FEE LEASE)
S-1327-87-0	21,000 gallons	3020-05 C	1	135.00	135.00	A	ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)
S-1327-88-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	ONE 42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10X1370 SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)
S-1327-89-0	84,000 gallons	3020-05 D	1	185.00	185.00	A	ONE 84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20X1257 SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)
S-1327-90-0	12,600 gallons	3020-05 B	1	93.00	93.00	A	ONE 12,600 GALLON WASH TANK SERVED BY A PRESSURE RELIEF DEVICE (HAZELTON LEASE)
S-1327-91-0	21,000 gallons	3020-05 C	1	135.00	135.00	A	ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE VACUUM VENT (HAZELTON LEASE)
S-1327-92-0	12,600 GALLON STORAGE TANK	3020-05 B	1	93.00	93.00	A	300 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV-VENT
S-1327-102-0	42,000 GALLON TANK	3020-05 C	1	135.00	135.00	A	1000 BBL HEATED FIXED ROOF CRUDE OIL STORAGE TANK
S-1327-103-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1000 BARREL FIXED ROOF CRUDE OIL STORAGE TANK
S-1327-104-0	21,000 gallon storage tank	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF WASH TANK (THETA LEASE)
S-1327-105-0	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (THETA LEASE)
S-1327-106-0	21,000 gallon storage tank	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF PETROLEUM STORAGE TANK (WEST COAST LEASE)
S-1327-107-0	63,000 gallons	3020-05 D	1	185.00	185.00	A	1,500 BBL FIXED ROOF WASH TANK (WILLIAMSON LEASE)
S-1327-108-0	42,000 gallon storage tank	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (WILLIAMSON LEASE, TANK #1)
S-1327-109-0	42,000 GALLONS	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH TRUCK LOADOUT (WILLIAMSON LEASE, TANK #2)



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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1327-110-1	500 controlled wells	3020-09 A	500	9.34	4,670.00	A	TEOR OPERATION WITH 500 CYCLIC WELLS, GAS/OIL SEPARATOR, VACUUM PUMP, CASING GAS COLLECTION SYSTEM, SULFATREAT SYSTEM, UP TO TWO SULFUR REMOVAL SYSTEMS AND UP TO 30 DRAIN POTS TO PIPING TO DEPARTMENT OF CONSERVATION - DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES (DOGGR) APPROVED GAS INJECTION WELLS, DUCT WORK TO FOUR HEATER TREATERS WITH PERMIT-EXEMPT BURNERS (5 MMBTU/HR OR LESS) AND/OR DISTRICT PERMITTED STEAM GENERATORS
S-1327-111-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (ENRON-UNITED LEASE)
S-1327-112-0	42,000 GALLON STORAGE TANK	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH A P/V RELIEF VALVE (ENRON-UNITED LEASE)
S-1327-113-0	16,800 GALLON STORAGE TANK	3020-05 B	1	93.00	93.00	A	400 BBL CRUDE OIL STORAGE TANK WITH A P/V RELIEF VALVE
S-1327-114-0	42,000 gal	3020-05 C	1	135.00	135.00	A	1,000 BBL CRUDE OIL STORAGE TANK WITH A P/V RELIEF VALVE
S-1327-115-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH A P/V RELIEF VALVE
S-1327-116-0	25.0 MMBtu/hr steam generator	3020-02 H	1	1,030.00	1,030.00	A	NON-COMPLIANT DORMANT 25 MMBTU/HR NATURAL GAS/LPG FIRED STEAM GENERATOR, WITH MAXON KINEDIZER LOW NOX BURNER AND SMARTFIRE CONTROLLER
S-1327-117-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)
S-1327-118-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)
S-1327-119-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)
S-1327-120-0	23.0 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	23.0 MMBTU/HR NATCO SERIAL #S8709 NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR (HSG #45, DIS# 21088-66) WITH A NORTH AMERICAN MODEL 6121 BURNER, DIFFUSER PLATE, AND FGR
S-1327-121-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16' H) (WILLIAMSON II LEASE)
S-1327-122-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WILLIAMSON II LEASE)
S-1327-123-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16'H) (WILLIAMSON II LEASE)
S-1327-124-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16'H) (THETA LEASE)
S-1327-125-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16'H) (THETA LEASE)

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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1327-126-1	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH VAPOR CONTROL SYSTEM AND SULFATREAT H2S REMOVAL SYSTEM ROUTED TO DOGGR-APPROVED DISPOSAL WELLS OR DISTRICT PERMITTED STEAM GENERATORS
S-1327-127-0	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK T-351 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-4073-42
S-1327-128-0	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL SLOP TANK T-361 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-4073-42
S-1327-129-0	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL SLOP TANK T-362 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-4073-42
S-1327-130-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #1)
S-1327-131-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #2)
S-1327-132-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #3)
S-1327-133-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #4)
S-1327-134-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #5)
S-1327-135-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #6)
S-1327-136-0	85 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #7)
S-1327-137-0	25 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	25 MMBTU/HR NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR EQUIPPED WITH GIDEON MODEL MGW-25 LOW NOX BURNER, FGR, AND AIR/FUEL RATIO CONTROLLER
S-1327-138-0	25 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	25 MMBTU/HR NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR EQUIPPED WITH GIDEON MODEL MGW-25 LOW NOX BURNER, FGR, AND AIR/FUEL RATIO CONTROLLER
S-1327-139-0	21,000 GAL	3020-05 C	1	135.00	135.00	A	ONE 500 BBL FIXED ROOF PETROLEUM STORAGE TANK #1 (THETA LEASE)
S-1327-140-0	10,500 GAL	3020-05 B	1	93.00	93.00	A	ONE 250 BBL FIXED ROOF CRUDE OIL WASH TANK #2 (THETA LEASE)

**Detailed Facility Report**  
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-1327-146-0	420,000 gallons	3020-05 E	1	246.00	246.00	A	10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK T-120 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1326-126
S-1327-155-2	85.0 MMBtu/hr	3020-02 H	1	1,030.00	1,030.00	A	85 MMBTU/HOUR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER (OR EQUIVALENT) WITH FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #8)
S-1327-159-0	30,000 GALLON ACID TANK	3020-05 C	1	135.00	135.00	A	30,000 GALLON FIXED ROOF HYDROCHLORIC ACID (HCL) STORAGE TANK VENTED THROUGH A FUME SCRUBBER SHARED WITH S-1326-160, #T-651
S-1327-160-0	30,000 GALLON ACID TANK	3020-05 C	1	135.00	135.00	A	30,000 GALLON FIXED ROOF HYDROCHLORIC ACID (HCL) STORAGE TANK VENTED THROUGH A FUME SCRUBBER SHARED WITH S-1326-159 #T-652
S-1327-169-0	31,500 gallon tank	3020-05 C	1	135.00	135.00	A	750 BBL FIXED ROOF WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1327-170, '-171, '-172 AND '-173 INCLUDING HEAT EXCHANGER, HEATER TREATER, COMPRESSOR(S), TWO COMPRESSORS DRIVEN BY PERMIT-EXEMPT IC ENGINES, AN H2S SCRUBBER AND A 21.6 MMBTU/HR SONIC FLARE
S-1327-170-0	21,000 gallon tank	3020-05 C	1	135.00	135.00	A	500 BBL FIXED ROOF CRUDE OIL SHIPPING TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)
S-1327-171-0	42,000 gal tank	3020-05 C	1	135.00	135.00	A	1,000 BBL FIXED CONE ROOF PRODUCTION/SHIPPING TANK (21 .5 FT X 16-FT) WITH P/V VENT CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT UNIT S-1327-169 (PLEITO LEASE)
S-1327-172-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1000 BBL FIXED ROOF STOCK TANK T-130-B SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)
S-1327-173-0	42,000 gallons	3020-05 C	1	135.00	135.00	A	1000 BBL FIXED ROOF STOCK TANK T-130-A SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)
S-1327-174-0	250 hp	3020-10 C	1	240.00	240.00	A	250 BHP CUMMINS MODEL QSB7-G3 NR3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR
S-1327-175-0	4 wells	3020-09 A	4	9.34	37.36	A	UP TO FOUR INSITU COMBUSTION WELLS SERVED BY VAPOR CONTROL SYSTEM

Number of Facilities Reported: 1

# **Attachment B**

## **Exempt Equipment**

The following exempt equipment was identified by the applicant on TVFORM-003, Insignificant Activities

Exemption Category	Rule 2020 Citation	
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1	
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1	✓
Piston-type i.c. engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3	
Space heating equipment other than boilers	6.1.4	
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	
Use of less than 2 gal/day of graphic arts materials	6.3	
Equipment at retail establishments used to prepare food for human consumption	6.4.1	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3	
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5	
Containers used to store clean produced water	6.6.1	✓
Containers ≤100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2	
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3	
Containers with a capacity ≤ 250 gallons used to store org-anic material where the actual storage temperature <150 F	6.6.4	✓
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5	
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥0.9042	6.6.6	
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7	

<b>Exemption Category</b>	<b>Rule 2020 Citation</b>	
Containers used to store refined lubricating oils	6.6.8	✓
Unvented pressure vessels used exclusively to store liquefied gases or assoc with exempt equipment	6.6.9 or 6.13	
Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	✓
Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
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	
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	
Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	
Equipment used to apply architectural coatings	6.8.1	
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	
Brazing, soldering, or welding equipment	6.10	✓
Equipment used to compress natural gas	6.11	
Fugitive emissions sources assoc. with exempt equipment	6.12	✓
Pits and Ponds as defined in Rule 1020	6.15	✓
On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	✓
Emissions less than 2 lb/day from units not included above	6.19	✓
Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Non-structural repairs & maintenance to permitted equipment	7.3	✓
Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

# **ATTACHMENT C**

## **CURRENT PERMITS TO OPERATE (PTOs)**



# Permit to Operate

**FACILITY:** S-1327

**EXPIRATION DATE:** 02/28/2014

**LEGAL OWNER OR OPERATOR:**

VINTAGE PRODUCTION CALIFORNIA LLC

**MAILING ADDRESS:**

9600 MING AVE, SUITE 300  
BAKERSFIELD, CA 93311

**FACILITY LOCATION:**

HEAVY OIL WESTERN, KERN COUNTY  
CA

**FACILITY DESCRIPTION:**

OIL AND NATURAL 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-1327-0-0

**EXPIRATION DATE:** 02/28/2014

## **FACILITY-WIDE REQUIREMENTS**

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1. Facilities S-6848 and S-1327 constitute one stationary source. [District Rule 2201]

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: VINTAGE PRODUCTION CALIFORNIA LLC  
Location: HEAVY OIL WESTERN, KERN COUNTY, CA  
S-1327-0-0: Sep 20 2012 12:19PM - TORID

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-32-3

EXPIRATION DATE: 02/28/2014

SECTION: 12&24 TOWNSHIP: 30S RANGE: 21E

## EQUIPMENT DESCRIPTION:

36 MMBTU/HR NATURAL/TEOR GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME ULTRA LOW-NOX BURNER AND FLUE GAS RECIRCULATION

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Steam generator shall only be authorized to operate at SW/4 Section 12, T30S, R21E, NE/4 Section 24 T30S R 21E, and SW/4 Section 24, T30S, R21E. [District Rule 4102]
5. The operator shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1081]
6. The unit shall only be fired on PUC-regulated natural gas and TEOR gas with a sulfur content no greater than 1 gr S/100 scf. [District Rule 2201]
7. Emissions rates from the steam generator shall not exceed any of the following limits: 9 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.037 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305 and 4306]
8. 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]
9. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. 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]
11. 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]
12. Permittee shall determine sulfur content of scrubbed TEOR gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081 and 2201]
13. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on TEOR gas shall be conducted within 60 days of initial TEOR gas firing. [District Rules 2201, 4305, and 4306]
14. 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, 6.3.1 and 4306, 6.3.1]
15. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
16. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2]
17. 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]
18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1]
19. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas moisture content - EPA Method 4, stack gas velocities - EPA Method 2, and fuel gas sulfur content - ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans. [District Rules 1081, 4305, 4306 and 4351]
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306 5.5.5]
21. Permittee shall maintain daily records of fuel type and amounts combusted. [District Rule 1070]
22. 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-1327-34-7

EXPIRATION DATE: 02/28/2014

SECTION: NE 15 TOWNSHIP: 27S RANGE: 19E

## EQUIPMENT DESCRIPTION:

23.0 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STRUTHERS STEAM GENERATOR (HSG #29; DIS# 21004-66) WITH NORTH AMERICAN BURNER AND FLUE GAS RECIRCULATION: AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE WESTERN HEAVY OIL STATIONARY SOURCE

## PERMIT UNIT REQUIREMENTS

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1. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080]
2. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080]
3. While dormant, normal source testing shall not be required. [District Rule 2080]
4. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080]
5. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080]
6. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070]
7. The equipment shall not be operated within 1,000 feet of a K-12 school. [CH&SC 42301.6]
8. The equipment shall not operate closer than 1,000 feet of the nearest receptor (off-site residence or business). [District Rule 4102]
9. 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 Rules 1070 and 2520, 9.3.2]
10. Only pipeline quality gas and vapor recovery gas from TEOR system S-1327-42 shall be used as a fuel. [District Rule 2201]
11. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201]
12. Emission rates shall not exceed any of the following: NOx: 15 ppmvd @ 3%O<sub>2</sub>, PM<sub>10</sub>: 0.0076 lb/ MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 0.00285 lb/ MMBtu, VOC: 0.003 lb/ MMBtu, or CO: 45 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201, 4305 & 4306]
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 the 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. 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. 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]
19. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
20. 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]
21. 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]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
23. 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]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
26. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
28. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
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, 4306 and 4320]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-35-2

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR TEOR/NATURAL GAS-FIRED STRUTHERS STEAM GENERATOR WITH NORTH AMERICAN MAGNAFLAME 4231-G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION. (NORTH ANTELOPE LEASE OR HSG-179 MCKITTRICK)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
4. This unit is authorized to operate at either the facility's North Antelope Lease (SE/4 Sec.15, T27S, R19E) or at the Mckittrick Field at SW/4 Sec. 12, T30S, R21E). [District Rules 2201 and 4102]
5. The permittee shall notify the District Compliance Division each time the unit switches locations. Such notification shall be made no later than 48 hours after starting operation at the new location. [District Rule 2201]
6. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201]
7. All wells producing from strata steamed by this unit shall be connected to a District-approved emission control system, have District-approved closed casing vents or be District -approved uncontrolled cyclic wells. [District Rule 4401]
8. 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]
9. Only pipeline quality gas and vapor recovery gas from TEOR system S-1327-42 shall be used as a fuel. [District Rule 2201]
10. When fired on natural gas and/or treated TEOR vapor recovery gas, emission rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.01 lb-PM10/MMBtu, 50 ppmvd CO @ 3% O2 or 0.037 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306 5.1.1]
11. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]

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, 4306, and 4320]
13. Permittee shall determine sulfur content of fuel gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, and 4320]
14. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]
15. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]
16. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert back to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
17. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise 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 4320. [District Rules 4305, 4306, and 4320]
19. 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]
20. 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, 4306, and 4320]
21. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]
22. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4320]
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
25. Permittee shall maintain daily records of fuel type and amounts combusted, and records of fuel gas sulfur compound measurements. [District Rules 1070, 2201, and 4320]
26. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-36-0

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

2,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK (#26738)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
3. 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]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. 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]
7. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
8. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
9. 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]
10. 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]
11. 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-1327-37-0

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

3,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK, WASH TANK

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
3. 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]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. 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]
7. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
8. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
9. 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]
10. 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]
11. 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-1327-38-0

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

2,000 BBL FIXED ROOF CRUDE OIL PRODUCTION TANK (#26L39)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
3. 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]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. 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]
7. The permittee shall not emit more than one half of the major source threshold based on a rolling 12-month summary of actual emissions. [District Rule 2530, 6.1]
8. The permittee shall maintain a record of the rolling 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
9. 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]
10. 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]
11. 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-1327-41-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** 15 **TOWNSHIP:** 27S **RANGE:** 19E

**EQUIPMENT DESCRIPTION:**

4.25 MMBTU/HR GAS-FIRED HEATER TREATER CONSISTING OF TWO BURNERS EACH RATED 1.75 MMBTU/HR AND ONE BURNER RATED AT 0.75 MMBTU/HR (NORTH ANTELOPE HILLS)

## PERMIT UNIT REQUIREMENTS

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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]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-42-9

EXPIRATION DATE: 02/28/2014

SECTION: 15 TOWNSHIP: 27S RANGE: 19E

## EQUIPMENT DESCRIPTION:

TEOR OPERATION WVC SYSTEM INCLUDING 200 STEAM DRIVE WELLS, HEAT EXCHANGER (OPTIONAL), GAS/LIQUID SEPARATOR, VACUUM PUMP SKID, SULFUR REMOVAL SYSTEM, AND COMPRESSED VAPOR PIPING TO DISTRICT APPROVED INCINERATION/DISPOSAL DEVICES LISTED ON PERMIT S-1327-32, '-34, '-35, '-71, '-72, AND 10.42 MMBTU/HR COANDA EFFECT SMOKELESS FLARE WITH NATURAL GAS/PROPANE PILOT

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. All components of well vent vapor collection and control systems shall be maintained in good working condition. [District Rule 4401]
3. Leaks shall be inspected and repaired as specified in Rule 4401. [District Rule 4401]
4. Total uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rule 4401]
5. TEOR operation shall include heat exchanger, gas/liquid separator, vacuum pump skid, and compressed vapor piping with vapors incinerated in steam generators '-32, '-34, '-35, '-71, '-72, and/or flare. [District Rule 2201]
6. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201]
7. 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]
8. Flare shall be equipped with waste gas volume flow meter. [District Rule 2201]
9. Flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times when combustible gases are vented to the flare. [District Rule 4311]
10. Total concentration of sulfur compounds in gas incinerated in incineration devices shall not exceed 4 ppmv. [District Rules 2201 and 4801]
11. Maximum amount of waste gas combusted in incineration devices shall not exceed 250 MMBtu/day or 31,025 MMBtu/yr. [District Rule 2201]
12. Emissions from the flare shall not exceed any of the following (based on total gas combusted): PM-10: 0.008 lb/MMBtu; NOx (as NO2): 0.068 lb/MMBtu; VOC: 0.063 lb/MMBtu; or CO: 0.37 lb/MMBtu. [District Rule 2201]
13. Maximum VOC content of TEOR operation vapor shall not exceed 10% by weight. [District Rule 2201]
14. Operator shall conduct quarterly sampling of vapor to qualify for exemption from fugitive component counts for components handling vapor with less than 10% VOC by weight. If vapor sampled contains less than 10% VOCs for 8 consecutive quarterly samplings, then sampling frequency shall only be required annually. [District Rule 2201]
15. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

16. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]
17. Permittee shall maintain a written record of the VOC content and heating value of the gas sampled. [District Rule 2201]
18. 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 waste 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]
19. Weekly records of the waste gas sulfur content and daily records of waste gas flow rate shall be maintained, retained on the premises for a period of at least five years, and made available for District inspection on request. [District Rules 2201, 4311, and 4801]
20. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 4401]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-55-0

EXPIRATION DATE: 02/28/2014

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

524 BBL FIXED ROOF CRUDE OIL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-3505-1.
2. Formerly permit number S-1372-360.
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
5. 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]
6. 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]
7. 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]
8. 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]
9. 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]
10. 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]
11. 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-1327-56-0

EXPIRATION DATE: 02/28/2014

SECTION: NW13 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

785 BBL FIXED ROOF CRUDE OIL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-3505-2.
2. Formerly permit number S-1372-361.
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
5. 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]
6. 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]
7. 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]
8. 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]
9. 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]
10. 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]
11. 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]

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-57-0

EXPIRATION DATE: 02/28/2014

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-3505-3.
2. Formerly permit number S-1372-362.
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
5. 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]
6. 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]
7. 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]
8. 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]
9. 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]
10. 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]
11. 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]

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-58-0

EXPIRATION DATE: 02/28/2014

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

1,500 BBL FIXED-ROOF CONSTANT LEVEL CRUDE OIL WASH TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-1372-366.
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Tank shall be operated at constant level. [District NSR Rule]
4. VOC emissions from tank shall not exceed 0.9 lb/day. [District NSR Rule]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 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]
8. 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]
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]
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-1327-59-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW 12 **TOWNSHIP:** 30S **RANGE:** 21E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-1372-367.
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Throughput shall not exceed 500 bbl/day (monthly average). [District NSR Rule]
4. Emissions from tank shall not exceed 1.9 lb/day. [District NSR Rule]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 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]
8. 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]
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]
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-1327-60-0

EXPIRATION DATE: 02/28/2014

SECTION: SW12 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly permit number S-1372-368.
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Throughput shall not exceed 500 bbl/day (monthly average). [District NSR Rule]
4. Emissions from tank shall not exceed 1.9 lb/day. [District NSR Rule]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 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]
8. 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]
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]
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-1327-70-0

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

THERMALLY ENHANCED OIL RECOVERY OPERATION WITH UP TO 100 STEAM ENHANCED WELLS SERVED BY CASING GAS COLLECTION SYSTEM (MCKITTRICK LEASE) WITH SULFATREAT H2S REMOVAL SYSTEM AND COANDA EFFECT FLARE

## PERMIT UNIT REQUIREMENTS

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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 1/4 or 5% opacity. [District Rule 2201]
3. Total VOC emissions shall be reduced by at least 99% by vapor control system. [District Rule 4401]
4. TEOR gas shall only be combusted in flare, combusted in steam generator S-1327-32, sent to sales gas line, or injected in DOGGR-approved disposal wells, [District Rule 2201]
5. Leaks exceeding an instrument reading of 10,000 ppmv are a violation of this permit. [District Rules 2201 and 4401]
6. Fugitive VOC emissions from TEOR operation shall not exceed 3.1 lb/day. [District Rule 2201]
7. Flare shall be equipped with waste gas volume flow meter. [District Rule 2201]
8. Flare shall be equipped with a heat sensing device to detect the presence of a propane or natural gas pilot flame which is burning at all times. [District Rule 4311]
9. Total H2S concentration of gas incinerated in flare shall not exceed 4 ppmv. [District Rule 2201]
10. Maximum amount of waste gas combusted shall not exceed 350,000 scf/day. [District Rule 2201]
11. Gas shall be treated to remove sulfur to 1.0 gr S/100scf using sulfa-treat system prior to being combusted in steam generator S-1327-32. [District Rule 2201]
12. Emissions from the flare shall not exceed any of the following (based on total gas combusted): PM-10: 0.008 lb/MMBtu; NOx (as NO2): 0.068 lb/MMBtu; VOC: 0.063 lb/MMBtu; or CO: 0.37 lb/MMBtu. [District Rule 2201]
13. Permittee shall determine sulfur content of scrubbed TEOR gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H2S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081 and 2201]
14. Permittee shall implement an I&M program consistent with the requirements of Rule 4401. [District Rule 4401]
15. Weekly and quarterly records of the waste gas sulfur content and daily records of waste gas flow rate shall be maintained, retained on the premises for a period of at least five years, and made available for District inspection on request. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

16. Permittee shall maintain records of the date and well identification where steam injection or well stimulation occurs, current list of all thermally enhanced production wells associated with this operation, leak inspection results, and accurate fugitive component counts of components in gas service and resulting emissions calculated using the emission factors in the CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999) . [District Rules 2201 and 4401]
17. All records shall be maintained and made readily available for District inspection upon request for a period of five years. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-80-0

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 25S RANGE: 18E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF STOCK TANK WITH PV VALVE

## PERMIT UNIT REQUIREMENTS

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1. Formerly S-2803-8-0. [District Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Tank throughput shall not exceed 74 bbl per day. [District Rule 2201]
4. VOC emission rate from this unit shall not exceed 5.2 lb/day [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
6. 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]
7. 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]
8. 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 4623]
9. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623]
10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623]
11. 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-1327-81-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SE15 **TOWNSHIP:** 25S **RANGE:** 18E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED-ROOF STOCK TANK WITH P/V VALVE

## PERMIT UNIT REQUIREMENTS

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1. Formerly S-2803-9-0. [District Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Tank throughput shall not exceed 74 bbl per day. [District Rule 2201]
4. VOC emission rate from this unit shall not exceed 5.2 lb/day. [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
6. 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]
7. 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]
8. 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 4623]
9. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623]
10. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 4623]
11. 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-1327-82-0

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 25S RANGE: 18E

**EQUIPMENT DESCRIPTION:**

100 BBL FIXED ROOF SLOP OIL TANK

## PERMIT UNIT REQUIREMENTS

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1. Formerly S-2803-10-0. [District Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Tank throughput shall not exceed 100 gallons/day. [District Rule 2201]
4. VOC emission rate from this unit shall not exceed 0.4 lb/day. [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 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]
8. 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]
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]
11. The permittee shall keep accurate records of each organic liquid stored in the tank, including its throughput, storage temperature, TVP, and API gravity. [District Rules 2201 and 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-1327-83-0

EXPIRATION DATE: 02/28/2014

SECTION: SE15 TOWNSHIP: 25S RANGE: 18E

**EQUIPMENT DESCRIPTION:**

83.0 MMBTU/HR AIR-ASSISTED FLARE WITH MACTRONIC-ENERFLEX FLARE TIP AND CONTINUOUS PILOT

## PERMIT UNIT REQUIREMENTS

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1. Formerly S-2803-12-0. [District Rule]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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 4101]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Emissions from this flare shall not exceed any of the following limits: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.0029 lb-SO<sub>x</sub>/MMBtu, 0.008 lb-PM<sub>10</sub>/MMBtu, 0.37 lb-CO/MMBtu, or 0.063 lb-VOC/MMBtu. [District Rule 2201]
6. Total sulfur concentration of gas introduced to the flare shall not exceed 1.0 gr-S/100 scf. [District Rules 2201 and 4801]
7. Permittee shall measure sulfur content of gas introduced to the flare at least once every year. Such data shall be submitted to the District within 60 days of sample collection. [District Rules 2201 and 4801]
8. The flare gas sulfur concentration shall be measured using one of the following test methods: ASTM D1072, ASTM D3246, ASTM D6228 (GC-FPD), double GC for H<sub>2</sub>S and mercaptans, or equivalent test method with prior District approval. [District Rule 2201]
9. The quantity of gas incinerated in this flare shall not exceed 399 MMBtu per day (equivalent to 399,000 scf per day). [District Rule 2201]
10. The flare shall be equipped with flare gas volume flow meter. [District Rule 2201]
11. Permittee shall maintain daily records of the volume (scf) and the sulfur content (grains/scf) of gas combusted in the flare. Such records shall be retained for a period of five years and made readily available for District inspection upon request. [District Rule 2201]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-84-0

EXPIRATION DATE: 02/28/2014

SECTION: NW15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

300 BBL FIXED ROOF CRUDE OIL WASH TANK (CHAPMAN FEE LEASE)

## PERMIT UNIT REQUIREMENTS

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1. Facilities S-1327 and S-6848 are part of the same stationary source. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Average daily tank throughput (on a monthly basis) shall not exceed 50 bbl/day of crude oil (neglecting produced water). [District Rule 2201]
4. True vapor pressure of any organic liquid introduced or stored in this tank shall not exceed 0.17 psia. [District Rule 2201]
5. 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]
6. 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]
7. 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]
8. 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]
9. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
11. The permit holder shall keep accurate records of the throughput of each crude oil stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
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-1327-85-0

EXPIRATION DATE: 02/28/2014

SECTION: NW15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #1 (CHAPMAN FEE LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. Facilities S-1327 and S-6848 are part of the same stationary source. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Average daily tank throughput (on a monthly basis) shall not exceed 25 bbl/day of crude oil. [District Rule 2201]
4. True vapor pressure of any organic liquid introduced or stored in this tank shall not exceed 0.09 psia. [District Rule 2201]
5. 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]
6. 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]
7. 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]
8. 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]
9. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
11. The permit holder shall keep accurate records of the tank throughput and each crude oil stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
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-1327-86-0

EXPIRATION DATE: 02/28/2014

SECTION: NW15 TOWNSHIP: 27S RANGE: 19E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF CRUDE OIL STORAGE TANK #2 (CHAPMAN FEE LEASE)

## PERMIT UNIT REQUIREMENTS

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1. Facilities S-1327 and S-6848 are part of the same stationary source. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Average daily tank throughput (on a monthly basis) shall not exceed 25 bbl/day of crude oil. [District Rule 2201]
4. True vapor pressure of any organic liquid introduced or stored in this tank shall not exceed 0.09 psia. [District Rule 2201]
5. 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]
6. 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]
7. 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]
8. 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]
9. Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623]
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]
11. The permit holder shall keep accurate records of the tank throughput and each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
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]

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-87-0

EXPIRATION DATE: 02/28/2014

SECTION: 18 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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]
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
6. 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]
7. 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]
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. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
10. 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]
11. 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 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-88-0

EXPIRATION DATE: 02/28/2014

SECTION: 18 TOWNSHIP: 11N RANGE: 23W

## EQUIPMENT DESCRIPTION:

ONE 42,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #10X1370 SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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]
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
6. 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]
7. 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]
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
9. 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]
10. 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]
11. 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 1070]

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-89-0

EXPIRATION DATE: 02/28/2014

SECTION: 18 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

ONE 84,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK #20X1257 SERVED BY A PRESSURE RELIEF DEVICE (LINCOLN LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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]
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
6. 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]
7. 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]
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
9. 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]
10. 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]
11. 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 1070]

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-90-0

EXPIRATION DATE: 02/28/2014

SECTION: NW17 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

ONE 12,600 GALLON WASH TANK SERVED BY A PRESSURE RELIEF DEVICE (HAZELTON LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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]
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
6. 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]
7. 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]
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
9. 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]
10. 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]
11. 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 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-91-0

EXPIRATION DATE: 02/28/2014

SECTION: NE17 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

ONE 21,000 GALLON FIXED ROOF PETROLEUM STORAGE TANK SERVED BY A PRESSURE VACUUM VENT (HAZELTON LEASE)

## PERMIT UNIT REQUIREMENTS

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1. The tank PV valve shall be set to within 10% of the maximum allowable working pressure of the tank. [District Rules 2201]
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 2201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
5. 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]
6. 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]
7. 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]
8. 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]
9. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [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]
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 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-92-0

EXPIRATION DATE: 02/28/2014

SECTION: NE17 TOWNSHIP: 11N RANGE: 23W

**EQUIPMENT DESCRIPTION:**

300 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH PV-VENT

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623]
3. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
4. The true vapor pressure (TVP) of any organic liquid introduced to the tank shall not exceed 0.5 psia at liquid temperature. [District Rule 4623, 2.0]
5. VOC emission rate from the tank shall not exceed 3.4 lb/day. [District Rule 2201]
6. 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 2201]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 2201]
8. 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 2201]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 2201]
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 2201]
11. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
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 1070]
13. Formerly S-1215-24-0.
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]
15. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-102-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW 34 **TOWNSHIP:** 25S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1000 BBL HEATED FIXED ROOF CRUDE OIL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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 4623]
3. Tank shall be equipped with operational temperature indicator in a location that is readily accessible. [District Rule 2201]
4. Bulk temperature of fluids stored in tank shall not exceed 200 degrees F. [District Rule 2201]
5. Throughput shall not exceed 100 barrels per day based on a monthly average. [District Rule 2201]
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.4 psia under all storage conditions. [District Rules 2201 and 4623]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
8. 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]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
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]
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]
12. 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]
13. 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-1327-103-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW 34 **TOWNSHIP:** 25S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1000 BARREL FIXED ROOF CRUDE OIL STORAGE TANK

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
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 4623]
3. Tank shall be equipped with operational temperature indicator in a location that is readily accessible. [District Rule 2201]
4. Bulk temperature of fluids stored in tank shall not exceed 200 degrees F. [District Rule 2201]
5. Average daily tank throughput (on monthly basis) shall not exceed 500 bbl/day of fluid. [District Rule 2201]
6. This tank shall only store or hold liquid with a true vapor pressure (TVP) of less than 0.45 psia under all storage conditions. [District Rules 2201 and 4623]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
8. 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]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
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]
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]
12. 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]
13. 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-1327-104-0

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

500 BBL FIXED ROOF WASH TANK (THETA LEASE)

## 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. This tank shall be equipped with a pressure vacuum (PV) relief valve. This valve shall be set within ten percent of the maximum allowable working pressure of the tank. [District Rule 2201]
4. PV relief valve shall be permanently labeled with the operating pressure settings. [District Rule 2201]
5. PV relief valve shall be maintained in good operating order in accordance with manufacturer's instructions and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 2201]
6. The true vapor pressure of the liquid stored in this tank shall not exceed 0.2 psia under all storage conditions. [District Rule 2201]
7. The API gravity of an organic liquid stored in this tank shall be less than 26 degrees. [District Rule 2201]
8. The average throughput shall not exceed 150 barrels per day when calculated using monthly throughput records. [District Rule 2201]
9. TVP and API gravity test shall be conducted at least once every 24 months thereafter during summer (July - September). [District Rules 2201 and 4623]
10. TVP of an organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D323-94 (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 procedure listed in Appendix B of Rule 4623. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623]
11. API gravity shall be determined using ASTM Method D 287-92 (200) 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 4057-95 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products". Should the permittee determine that another method is more appropriate for API gravity, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623]
12. TVP and API gravity test records shall be submitted to the District within 45 days after the date of testing. The record shall include the tank identification number, permit number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
13. This tank shall meet VOC control requirements of Rule 4623 if TVP equals or exceeds 0.5 psia. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. Permittee shall maintain monthly records of throughput to demonstrate compliance with average daily throughput limit. [District Rule 2201]
15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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



# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-105-0

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (THETA LEASE)

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623]
6. 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]
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
8. 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-1327-106-0

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF PETROLEUM STORAGE TANK (WEST COAST LEASE)

## PERMIT UNIT REQUIREMENTS

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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. This tank shall be equipped with a pressure vacuum (PV) relief valve. This valve shall be set within ten percent of the maximum allowable working pressure of the tank. [District Rule 2201]
4. PV relief valve shall be permanently labeled with the operating pressure settings. [District Rule 2201]
5. PV relief valve shall be maintained in good operating order in accordance with manufacturer's instructions and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 2201]
6. The true vapor pressure of the liquid stored in this tank shall not exceed 0.2 psia under all storage conditions. [District Rule 2201]
7. The API gravity of an organic liquid stored in this tank shall be less than 26 degrees. [District Rule 2201]
8. The average throughput shall not exceed 150 barrels per day when calculated using monthly throughput records. [District Rule 2201]
9. TVP and API gravity test shall be conducted at least once every 24 months thereafter during summer (July - September). [District Rules 2201 and 4623]
10. TVP of an organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D323-94 (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 procedure listed in Appendix B of Rule 4623. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623]
11. API gravity shall be determined using ASTM Method D 287-92 (200) 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 4057-95 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products". Should the permittee determine that another method is more appropriate for API gravity, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623]
12. TVP and API gravity test records shall be submitted to the District within 45 days after the date of testing. The record shall include the tank identification number, permit number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
13. This tank shall meet VOC control requirements of Rule 4623 if TVP equals or exceeds 0.5 psia. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. Permittee shall maintain monthly records of throughput to demonstrate compliance with average daily throughput limit. [District Rule 2201]
15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-107-0

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,500 BBL FIXED ROOF WASH TANK (WILLIAMSON LEASE)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
3. 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]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. 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]
7. VOC fugitive emissions from components in gas service shall not exceed 11.7 lb/day. Fugitive component count and leak emissions are to be calculated using "Oil and Gas Production Operations Average Emission Factors, EPA Protocol for Equipment Leak Emission Factors, November 1995 (EPA-453/R-95-017). [District Rule 2201]
8. Maximum VOC content of total organic gases (TOG) shall not exceed 50% by weight. [District Rule 2201]
9. Permittee shall maintain with the permit accurate fugitive component counts for the tank and associated equipment. [District Rule 2201]
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]
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-1327-108-0

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (WILLIAMSON LEASE, TANK #1)

## 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. This tank shall be equipped with a pressure vacuum (PV) relief valve. This valve shall be set within ten percent of the maximum allowable working pressure of the tank. [District Rule 2201]
4. PV relief valve shall be permanently labeled with the operating pressure settings. [District Rule 2201]
5. PV relief valve shall be maintained in good operating order in accordance with manufacturer's instructions and shall remain in leak-free condition except when the operating pressure exceeds the valve set pressure. [District Rule 2201]
6. The true vapor pressure of the liquid stored in this tank shall not exceed 0.2 psia under all storage conditions. [District Rule 2201]
7. The API gravity of an organic liquid stored in this tank shall be less than 26 degrees. [District Rule 2201]
8. The average throughput shall not exceed 150 barrels per day when calculated using monthly throughput records. [District Rule 2201]
9. TVP and API gravity test shall be conducted at least once every 24 months thereafter during summer (July - September). [District Rules 2201 and 4623]
10. TVP of an organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D323-94 (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 procedure listed in Appendix B of Rule 4623. Should the permittee determine that another method is more appropriate for TVP testing, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623]
11. API gravity shall be determined using ASTM Method D 287-92 (200) 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 4057-95 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products". Should the permittee determine that another method is more appropriate for API gravity, the methodology must be approved by the District and US EPA prior to its use. [District Rule 4623]
12. TVP and API gravity test records shall be submitted to the District within 45 days after the date of testing. The record shall include the tank identification number, permit number, type of stored organic liquid, TVP and API gravity of the stored organic liquid, test methods used, and a copy of the test results. [District Rule 4623]
13. This tank shall meet VOC control requirements of Rule 4623 if TVP equals or exceeds 0.5 psia. [District Rule 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. Permittee shall maintain monthly records of throughput to demonstrate compliance with average daily throughput limit. [District Rule 2201]
15. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-109-0

EXPIRATION DATE: 02/28/2014

SECTION: SE2 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK WITH TRUCK LOADOUT (WILLIAMSON LEASE, TANK #2)

## PERMIT UNIT REQUIREMENTS

---

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
2. Daily throughput of oil shall not exceed 101 barrels per day, on a monthly average basis. [District Rule 2201]
3. Daily throughput of oil shall not exceed 303 barrels per day, on a daily maximum basis. [District Rule 2201]
4. 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 4623]
5. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623]
6. 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]
7. 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]
8. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623]
9. 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-1327-110-1

EXPIRATION DATE: 02/28/2014

SECTION: NW11 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

TEOR OPERATION WITH 500 CYCLIC WELLS, GAS/OIL SEPARATOR, VACUUM PUMP, CASING GAS COLLECTION SYSTEM, SULFATREAT SYSTEM, UP TO TWO SULFUR REMOVAL SYSTEMS AND UP TO 30 DRAIN POTS TO PIPING TO DEPARTMENT OF CONSERVATION -DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES (DOGGR) APPROVED GAS INJECTION WELLS, DUCT WORK TO FOUR HEATER TREATERS WITH PERMIT-EXEMPT BURNERS (5 MMBTU/HR OR LESS) AND/OR DISTRICT PERMITTED STEAM GENERATORS

## PERMIT UNIT REQUIREMENTS

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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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. All casing vents shall be connected to casing vent incineration system or shall be closed and plugged with produced fluids piped to gas/oil separator with gas connected to an incineration system or shall be connected to District approved steam generator intended for combusting casing gas. [District Rules 2201 and 4401]
4. TEOR operation is authorized to receive vapors from tank vapor control system S-1327-126. [District Rule 2201]
5. The VOC content of hydrocarbons in gas processed from the cyclic steam enhanced wells shall be less than or equal to 10% by weight. [District Rule 2201]
6. The content of hydrocarbons heavier than butane in the gas processed from the cyclic steam enhanced wells shall be less than 5% by weight. [District Rule 2201]
7. The uncontrolled VOC emissions from all well vents shall be reduced by at least 99%. [District Rules 2201 and 2080]
8. Permittee shall sample and record the VOC content of hydrocarbons and the content of hydrocarbons heavier than butane in the gas processed from steam enhanced wells at least once every 12 months. [District Rule 2201]
9. VOC content of the gas processed shall be determined using the latest version of ASTM Method E168, E169, or E260 or using an equivalent APCO and EPA approved Method. Halogenated exempt compounds shall be determined using CARB Method 432 or using an equivalent APCO and EPA approved Method. [District Rule 2201]
10. Content of hydrocarbons heavier than butane shall be determined using ASTM Method E-260-73 or using an equivalent APCO and EPA approved Method. [District Rule 2201]
11. Permittee shall sample and record the sulfur content of the gas burned in permit exempt equipment on a weekly basis. If the gas sulfur content is less than or equal to 1.0 grains/ 100 dscf for 8 consecutive weeks, the monitoring frequency shall be every 6 months. If any six-month monitoring tests result in a fuel content exceedance, weekly monitoring shall resume. [District Rule 2201]
12. Sulfur content of the gas processed shall be determined using ASTM Method D-1072-80 or using an equivalent APCO and EPA approved Method. [District Rule 2201]
13. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401. [District Rule 4401]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. The total number of leaks from the well vent vapor control system, including condensate handling, shall not exceed 10 at any one time. [District Rule 4401]
15. A leak shall be defined as a reading on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppmv when measured in accordance with EPA Method 21. [District Rule 4401]
16. The operator, upon detection of a leaking component, shall affix to that component a visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired. [District Rule 4401]
17. The operator shall repair each leak within 15 days of detection. The APCO may grant a 10-day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 4401]
18. Operator shall maintain all components of a well vent vapor collection and control system in good repair. Components of the well vent vapor collection and control system shall include all piping, valves, fittings, pumps, compressors, tanks, etc. used to collect, control, store, or dispose of VOC condensate or non-condensable VOCs prior to blending of VOC condensate with crude oil or blending of non-condensable VOCs with gases to be used as fuel. [District Rule 4401]
19. The crude oil production from wells associated with this permit unit shall not lie within 1,000 feet of an air injection well used for in-situ combustion. [District Rule 4407]
20. Permittee shall keep and maintain a record of all VOC content sampling results, content of hydrocarbons heavier than butane sampling results, and sulfur content sampling results. [District Rule 2201]
21. Permittee shall maintain records of annual inspections including measured leaks greater than 10,000 ppmv, maintenance performed for leaking components, and date of re-check of leaking components. [District Rule 4401]
22. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the control system, and shall make such listing readily available for District inspection upon request. [District Rule 1070]
23. The operator shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401]
24. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 4401]
25. Effective on and after January 1, 2009, the permittee shall meet all applicable requirements of Sections 5.5 through 5.9, 6.1.5 through 6.1.8, 6.4 through 6.6 of Rule 4401. [District Rule 4401]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-111-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (ENRON-UNITED LEASE)

## PERMIT UNIT REQUIREMENTS

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1. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Tank shall operate at constant level. [District Rule 2201]
4. Throughput shall not exceed 2500 barrels per day. [District Rule 2201]
5. VOC fugitive emissions from components in gas service shall not exceed 11.6 lb/day. Fugitive component count and leak emissions are to be calculated using "Oil and Gas Production Operations Average Emission Factors, EPA Protocol for Equipment Leak Emission Factors, November 1995 (EPA-453/R-95-017). [District Rule 2201]
6. Maximum VOC content of total organic gases (TOG) shall not exceed 50% by weight. [District Rule 2201]
7. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
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 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]
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 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]
12. Permittee shall maintain with the permit accurate fugitive component counts for the tank and associated equipment. [District Rule 2201]
13. 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]
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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-112-0

EXPIRATION DATE: 02/28/2014

SECTION: SE02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH A P/V RELIEF VALVE (ENRON-UNITED LEASE)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.31 psia or less under all storage conditions. [District Rule 2201]
4. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201]
5. VOC emission rate from the tank shall not exceed 13.1 lb/day. [District Rule 2201]
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 Rules 2201 and 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 Rules 2201 and 4623]
8. 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 Rules 2201 and 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 Rules 2201 and 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 Rules 2201 and 4623]
11. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-113-0

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

400 BBL CRUDE OIL STORAGE TANK WITH A P/V RELIEF VALVE

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. Tank shall be equipped with an operational temperature indicator. [District Rule 2201]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rule 2201]
5. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201]
6. VOC emission rate from the tank shall not exceed 3.7 lb/day. [District Rule 2201]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623]
8. 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 Rules 2201 and 4623]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-114-0

EXPIRATION DATE: 02/28/2014

SECTION: SW34 TOWNSHIP: 25S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL CRUDE OIL STORAGE TANK WITH A P/V RELIEF VALVE

## PERMIT UNIT REQUIREMENTS

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1. 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 4623]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. This tank shall be in a gas-tight condition. A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623. [District Rule 4623]
5. Tank shall operate at constant level. [District Rule 2201]
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
7. Throughput shall not exceed 2500 barrels per day. [District Rule 2201]
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 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]
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 operator shall keep accurate records of throughput, types and TVP of liquids stored. [District Rule 1070]
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-1327-115-0

EXPIRATION DATE: 02/28/2014

SECTION: SE2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED-ROOF CRUDE OIL STORAGE TANK WITH A PV RELIEF VALVE

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. Tank shall be equipped with an accurate, operational stored liquid temperature indicator. [District Rule 2201]
4. Temperature of liquid stored shall not exceed 180 °F. [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.31 psia or less under all storage conditions. [District Rule 2201]
6. Crude oil throughput shall not exceed 435 barrels per day based on a monthly average. [District Rule 2201]
7. VOC emission rate from the tank shall not exceed 15.2 lb/day. [District Rule 2201]
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 Rules 2201 and 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
13. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-116-0

EXPIRATION DATE: 02/28/2014

SECTION: SE2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

NON-COMPLIANT DORMANT 25 MMBTU/HR NATURAL GAS/LPG FIRED STEAM GENERATOR, WITH MAXON KINEDIZER LOW NOX BURNER AND SMARTFIRE CONTROLLER

## PERMIT UNIT REQUIREMENTS

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1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306]
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4306]
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. Daily heat input shall not exceed 528 MMBtu. Permittee shall maintain records of daily heat input and shall make such records available for District inspection. [District Rule 2201]
6. Emission rates shall not exceed the following: NO<sub>x</sub> (as NO<sub>2</sub>): 0.036 lb/MMBtu or 30 ppmv @ 3% O<sub>2</sub>, CO: 0.0813 lb/MMBtu or 110 ppmv @ 3% O<sub>2</sub>, VOC: 0.0055 lb/MMBtu, and PM<sub>10</sub>: 4.0 lb/day. [District Rules 2201 and 4305]
7. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of initial firing on natural gas. [District Rules 2201 and 4305]
8. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of initial firing on LPG. [District Rules 2201 and 4305]
9. Sulfur content of the natural gas and LPG shall not exceed 15 ppmv. [District Rule 2201]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070]
11. If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4305, 6.2.1]
13. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NO<sub>x</sub> and CO. [District Rule 4305, 6.3]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. Source testing to measure NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rule 4305]
15. Source testing to measure NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rule 4305]
16. If permittee fails any compliance demonstration for NOx or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rule 4305]
17. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
18. 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. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4305]
20. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4305]
21. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4305]
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4305]
23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4305]
24. Permittee shall maintain records of fuel gas sulfur concentration. [District Rule 1070]
25. 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 and 4305]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-117-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
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 leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
4. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rule 2201]
6. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201]
7. VOC emission rate from the tank shall not exceed 4.3 lb/day. [District Rule 2201]
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 Rules 2201 and 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-118-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE)

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
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 leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
4. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rule 2201]
6. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201]
7. VOC emission rate from the tank shall not exceed 4.3 lb/day. [District Rule 2201]
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 Rules 2201 and 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-119-0

EXPIRATION DATE: 02/28/2014

SECTION: SW02 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16' H) (WEST COAST LEASE):

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. This tank shall be operated as a constant level tank. [District Rule 2201]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rule 2201]
5. Crude oil throughput shall not exceed 450 barrels per day based on a monthly average. [District Rule 2201]
6. VOC emission rate from the tank shall not exceed 2.0 lb/day. [District Rule 2201]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623]
8. 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 Rules 2201 and 4623]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-120-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** VAR **TOWNSHIP:** VAR **RANGE:** VAR

**EQUIPMENT DESCRIPTION:**

23.0 MMBTU/HR NATCO SERIAL #S8709 NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR (HSG #45, DIS# 21088-66) WITH A NORTH AMERICAN MODEL 6121 BURNER, DIFFUSER PLATE, AND FGR

## PERMIT UNIT REQUIREMENTS

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1. The steam generator is approved to be operated at the following locations: Sections 2, 3, 11, 12, T26S/R20E; and Sections 33, 34, T25S/R20E [District Rule 2201]
2. The unit shall not be located within 1,000 feet of any K-12 school. [District Rule 2201 and CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division in writing of each location at which this steam generator is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
4. 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]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. 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]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. The unit shall only be fired on natural gas, LPG, or waste gas. [District Rule 2201]
9. Emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.018 lb-NO<sub>x</sub>/MMBtu, 0.00515 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.036 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070]
11. If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4306, 6.2.1]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. If FGR system on unit is used intermittently, monitoring shall consist of use of a portable analyzer. If FGR system on unit is continuously used, monitoring shall consist of either use of a portable analyzer or monitoring of FGR rate based on parameters established during initial compliance source testing. If FGR system on unit is not used, monitoring shall consist of either use of a portable analyzer or monitoring of stack O<sub>2</sub> and burner mechanical adjustments. The alternate monitoring scheme selected for this unit shall be established prior to implementation of this Authority to Construct. [District Rule 4306]
14. If periodic monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations is utilized, 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]
15. If periodic monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations is utilized and the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306]
16. If periodic monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations is utilized, 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]
17. If periodic monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> concentrations is utilized, 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]
18. If periodic determination of FGR rate by O<sub>2</sub> measurement is utilized, the flue gas recirculation rate shall be determined at least on a weekly basis by measuring the stack O<sub>2</sub>% by volume (O<sub>s</sub>), and windbox O<sub>2</sub>% by volume (O<sub>w</sub>) using the following equation:  $FGR\ rate = \{O_w - 20.9\} / \{O_s - 20.9\} \times 100\%$ . 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 week. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4305 and 4306]
19. If periodic determination of FGR rate by O<sub>2</sub> measurement is utilized, the minimum flue gas recirculation rate shall be established by source testing this unit or other representative units per Rule 4305 and as approved by the District. The normal range/level shall be no lower than the minimum flue gas recirculation rate with which compliance with applicable NO<sub>x</sub> and CO emission limits has been demonstrated through source testing at a similar firing rate. [District Rules 4305 and 4306]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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20. If periodic determination of FGR rate by O2 measurement is utilized, and the flue gas recirculation rate is less than the normal range/level, the permittee shall return the flue gas recirculation rate to the normal range/level as soon as possible, but no longer than 1 hour of operation after detection. If the flue gas recirculation rate is not returned to the normal range/level within 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a source test within 60 days of the first exceedance, to demonstrate compliance with the applicable emission limits at the new flue gas recirculation rate. A District-approved portable analyzer may be used in lieu of a source test to demonstrate compliance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306]
21. If periodic determination of FGR rate by O2 measurement is utilized, the permittee shall maintain records of the date and time of oxygen concentration measurements, the measured oxygen concentrations, the calculated flue gas recirculation rate, and the firing rate at the time of the oxygen concentration measurements. The records shall also include a description of any corrective action taken to maintain the flue gas recirculation rate within the acceptable range. [District Rules 4305 and 4306]
22. If monitoring of burner mechanical adjustments and O2 concentration is utilized, the stack O2 concentration measurement and inspection of [list mechanical adjustments/settings] shall be conducted at least on a weekly basis. 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 week. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4305 and 4306]
23. If monitoring of burner mechanical adjustments and O2 concentration is utilized, the normal range/level of stack O2 concentration and visible mechanical burner settings shall be established by source testing this unit or other representative units per Rule 4305 and as approved by the District. The normal range/level shall be that for which compliance with applicable NOx and CO emission limits has been demonstrated through source testing at a similar firing rate. [District Rules 4305 and 4306]
24. If monitoring of burner mechanical adjustments and O2 concentration is utilized, normal range or level for the stack O2 concentration and burner mechanical settings shall be re-established during each source test required by this permit. [District Rules 4305 and 4306]
25. If monitoring of burner mechanical adjustments and O2 concentration is utilized, and either the stack O2 concentration or visible mechanical burner settings are less than the normal range/level, the permittee shall return the stack O2 concentration and visible mechanical burner settings to the normal range/level as soon as possible, but no longer than 1 hour of operation after detection. If the stack O2 concentration and visible mechanical burner settings are not returned to the normal range/level within 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour, and conduct a source test within 60 days of the first exceedance, to demonstrate compliance with the applicable emission limits at the new stack O2 concentration and visible mechanical burner settings. A District-approved portable analyzer may be used in lieu of a source test to demonstrate compliance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306]
26. If monitoring of burner mechanical adjustments and O2 concentration is utilized, the permittee shall maintain records of the date and time of O2 measurements and burner adjustments, the measured O2 concentrations (% by volume) and firing rate at the time of O2 measurement, and the observed setting(s) for the burner. The records must also include a description of any corrective action taken to maintain the O2 concentration and the burner mechanical settings within the acceptable range. [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. If periodic determination of FGR rate by O<sub>2</sub> measurement or monitoring of burner mechanical adjustments and O<sub>2</sub> concentration is utilized, during the 36-month source testing interval, the owner/operator shall have unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306]
28. If periodic determination of FGR rate by O<sub>2</sub> measurement or monitoring of burner mechanical adjustments and O<sub>2</sub> concentration is utilized, and the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rule 4306]
29. During the 36-month source testing interval, the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306]
30. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
31. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of initial firing on natural gas or waste gas. [District Rules 2201, 4305, and 4306]
32. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of initial firing on LPG. [District Rules 2201, 4305, and 4306]
33. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306]
34. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
35. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
36. 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]
37. 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]
38. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
39. The permittee shall notify the District of the alternative monitoring method selected prior to or concurrently with implementation of this ATC. [District Rule 2080]
40. The permittee shall maintain records of each location at which the equipment was operated, the dates operated at each location, and the hours of operation at each location. [District Rule 2201]
41. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-121-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NE11 **TOWNSHIP:** T26S **RANGE:** R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16' H) (WILLIAMSON II LEASE)

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than or equal to 0.1 psia under all storage conditions. [District Rule 4623]
2. This tank shall be operated as a constant level tank. [District Rule 2201]
3. Tank throughput shall not exceed 200 barrels of crude oil per day. [District Rule 2201]
4. VOC emissions shall not exceed 0.9 lb/day. [District Rule 2201]
5. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623]
6. 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]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623]
8. 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]
9. 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]
10. Permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, daily throughput, and results of TVP and API gravity testing. [District Rule 4623]
11. 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-1327-122-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NE11 **TOWNSHIP:** T26S **RANGE:** R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16' H ) (WILLIAMSON II LEASE)

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than or equal to 0.1 psia under all storage conditions. [District Rule 4623]
2. Tank throughput shall not exceed 100 barrels of total throughput per day. [District Rule 2201]
3. VOC emissions shall not exceed 1.7 lb/day. [District Rule 2201]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. 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. Permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, daily throughput, and results of TVP and API gravity testing. [District Rule 4623]
10. 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-1327-123-0

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16'H) (WILLIAMSON II LEASE)

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than or equal to 0.1 psia under all storage conditions. [District Rule 4623]
2. Tank throughput shall not exceed 100 barrels of total throughput per day. [District Rule 2201]
3. VOC emissions shall not exceed 1.7 lb/day. [District Rule 2201]
4. 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]
5. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623]
6. 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. Permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, daily throughput, and results of TVP and API gravity testing. [District Rule 4623]
10. 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-1327-124-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NE11 **TOWNSHIP:** T26S **RANGE:** R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF PETROLEUM STORAGE TANK (BOLTED 24' DIA X 16'H) (THETA LEASE)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
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 leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 2201]
4. This tank shall be in a leak-free condition. A leak-free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit. [District Rule 2201]
5. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rule 2201]
6. Crude oil throughput shall not exceed 350 barrels per day based on a monthly average. [District Rule 2201]
7. VOC emission rate from the tank shall not exceed 4.2 lb/day. [District Rule 2201]
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 Rules 2201 and 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
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 Rules 2201 and 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-125-0

EXPIRATION DATE: 02/28/2014

SECTION: NE11 TOWNSHIP: T26S RANGE: R20E

**EQUIPMENT DESCRIPTION:**

1,000 BBL FIXED ROOF WASH TANK (BOLTED 24' DIA X 16'H) (THETA LEASE)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
3. This tank shall be operated as a constant level tank. [District Rule 2201]
4. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of 0.1 psia or less under all storage conditions. [District Rule 2201]
5. Crude oil throughput shall not exceed 450 barrels per day based on a monthly average. [District Rule 2201]
6. VOC emission rate from the tank shall not exceed 2.0 lb/day. [District Rule 2201]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623]
8. 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 Rules 2201 and 4623]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623]
10. 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 Rules 2201 and 4623]
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 Rules 2201 and 4623]
12. Permittee shall maintain monthly records of average daily crude oil throughput and shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. Inspection log and all other records shall be retained on-site for a minimum of five (5) years and made available for APCO upon request, except for certain records that need to be submitted as specified in this permit. [District Rules 1070, 2201 and 4623, 6.3]

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-126-1

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK WITH VAPOR CONTROL SYSTEM AND SULFATREAT H2S REMOVAL SYSTEM ROUTED TO DOGGR-APPROVED DISPOSAL WELLS OR DISTRICT PERMITTED STEAM GENERATORS

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
3. Vapor control system includes piping from sulfur scrubbers to any District permitted steam generator(s) at this facility as long as the permittee keep records of the permit number to which the vapor control system is connected. Vapor control system includes bypass piping around sulfur scrubbers to DOGGR-approved vapor disposal well(s) and TEOR operations S-1327-110 and '-161. [District Rule 2201]
4. Vapors from vapor control system shall not vent to atmosphere during recharging of the scrubber. [District Rule 2201]
5. Collected vapors shall be disposed of in District permitted steam generator(s) intended for combusting the vapors or approved incineration devices, or in Department of Oil, Gas and Geothermal Resources (DOGGR) approved vapor disposal wells. Permittee shall make documentation of DOGGR approval for injection wells readily available for District inspection upon request. [District Rule 2201]
6. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
7. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623]
8. 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 Rules 2201 and 4623]
9. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rules 2201 and 4623]
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 2201]
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 Rules 2201 and 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
13. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
14. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]
15. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rules 2201 and 4623]
16. During a District inspection, any tank, gauge hatch, sampling device, or other component that is not leak free will not be a violation of this permit provided the facility records, tags, and repairs the leak in accordance with the requirements of this permit. [District Rule 2201]
17. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2201]
18. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District Rule 2201]
19. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2201]
20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2201]
21. Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2201]
22. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2201]
24. Permittee shall maintain records of the VOC content of vapor in the tank vapor control system, including date and test results. [District Rule 2201]
25. Permittee shall maintain a written record of scrubber recharging dates. [District Rule 2201]
26. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080]
27. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080]
28. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080]
29. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080]
30. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080]
31. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080]
32. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080]
33. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-127-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK T-351 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-4073-42

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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 2201]
5. 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 2201]
6. 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 2201]
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 2201]
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 2201]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
10. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
11. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]

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

12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080]
13. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080]
14. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080]
15. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080]
16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080]
17. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080]
18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080]
19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-128-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL SLOP TANK T-361 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-4073-42

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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 2201]
5. 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 2201]
6. 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 2201]
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 2201]
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 2201]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
10. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
11. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080]
13. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080]
14. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080]
15. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080]
16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080]
17. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080]
18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080]
19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-129-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

**EQUIPMENT DESCRIPTION:**

10,000 BBL FIXED ROOF CRUDE OIL SLOP TANK T-362 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-4073-42

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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 2201]
5. 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 2201]
6. 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 2201]
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 2201]
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 2201]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
10. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
11. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080]
13. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080]
14. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080]
15. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080]
16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080]
17. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080]
18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080]
19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-130-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: T26S RANGE: R20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #1)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-131-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR, EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #2)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-132-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #3)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. Source testing to measure PM<sub>10</sub> shall be conducted using either: EPA Method 201 or 201A, and 202; or CARB Method 5 in combination with 501. Should the applicant decided to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

25. In lieu of performing a source test for PM10, the results of the total particulate test may be used for compliance with the PM10 emissions limit provided the results include both the filterable and condensable (back half) particulate, and that all particulate matter is assumed to be PM10. Source testing to measure concentrations of total particulate emissions shall be conducted using EPA method 5. [District Rule 2201]
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 2201, 4305, 4306, and 4320]
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
28. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-133-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW2 **TOWNSHIP:** T26S **RANGE:** R20E

**EQUIPMENT DESCRIPTION:**

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #4)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-134-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #5)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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



# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-135-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #6)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-136-0

EXPIRATION DATE: 02/28/2014

SECTION: NW2 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #7)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
5. This steam generator shall be located at N1/2 of the SW1/4 of the NW1/4 of Section 2, T26S and R20E. [District Rule 2201]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
8. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
9. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
11. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]
13. Source testing to measure fuel combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-137-0

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

25 MMBTU/HR NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR EQUIPPED WITH GIDEON MODEL MGW-25 LOW NOX BURNER, FGR, AND AIR/FUEL RATIO CONTROLLER

## PERMIT UNIT REQUIREMENTS

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1. The steam generator is approved to be operated at the following locations: Sections 2, 3, 11, 12, T26S/R20E; and Sections 33, 34, T25S/R20E [District Rule 2201]
2. The unit shall not be located within 1,000 feet of any K-12 school. [District Rule 2201 and CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division in writing of each location at which this steam generator is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
4. 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]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. 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]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. The unit shall only be fired on natural gas, LPG, or waste gas. [District Rule 2201]
9. Emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.018 lb-NO<sub>x</sub>/MMBtu, 0.0164 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.036 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070]
11. If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4306, 6.2.1]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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]
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. During the 36-month source testing interval, the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
19. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of natural gas to steam generator. [District Rules 2201, 4305, and 4306]
20. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of waste gas to steam generator. [District Rules 2201, 4305, and 4306]
21. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of LPG to steam generator. [District Rules 2201, 4305, and 4306]
22. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



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. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306]
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]
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
28. The permittee shall maintain records of each location at which the equipment was operated, the dates operated at each location, and the hours of operation at each location. [District Rule 2201]
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]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-138-0

**EXPIRATION DATE:** 02/28/2014

**EQUIPMENT DESCRIPTION:**

25 MMBTU/HR NATURAL GAS/LPG/WASTE GAS-FIRED STEAM GENERATOR EQUIPPED WITH GIDEON MODEL MGW-25 LOW NOX BURNER, FGR, AND AIR/FUEL RATIO CONTROLLER

## PERMIT UNIT REQUIREMENTS

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1. The steam generator is approved to be operated at the following locations: Sections 2, 3, 11, 12, T26S/R20E; and Sections 33, 34, T25S/R20E [District Rule 2201]
2. The unit shall not be located within 1,000 feet of any K-12 school. [District Rule 2201 and CH&SC 42301.6]
3. Permittee shall notify the District Compliance Division in writing of each location at which this steam generator is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
4. 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]
5. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
6. 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]
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
8. The unit shall only be fired on natural gas, LPG, or waste gas. [District Rule 2201]
9. Emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.018 lb-NO<sub>x</sub>/MMBtu, 0.0164 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 50 ppmvd CO @ 3% O<sub>2</sub> or 0.036 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
10. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070]
11. If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD, double GC for H<sub>2</sub>S and mercaptans, performed in the laboratory. [District Rule 1070]
12. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4306, 6.2.1]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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]
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. During the 36-month source testing interval, the operator shall tune the unit at least twice per calendar year, (from four to eight months apart) by a qualified technician in accordance with the procedure described in Rule 4304, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer. Semi-annual tuning is not required if emissions are monitored monthly with a portable analyzer. [District Rule 4306]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
19. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of natural gas to steam generator. [District Rules 2201, 4305, and 4306]
20. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of waste gas to steam generator. [District Rules 2201, 4305, and 4306]
21. Source testing to demonstrate compliance with NO<sub>x</sub> and CO emission limits shall be conducted within 60 days of introduction of LPG to steam generator. [District Rules 2201, 4305, and 4306]
22. Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306]
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]
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
28. The permittee shall maintain records of each location at which the equipment was operated, the dates operated at each location, and the hours of operation at each location. [District Rule 2201]
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]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-139-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NE03 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

ONE 500 BBL FIXED ROOF PETROLEUM STORAGE TANK #1 (THETA LEASE)

## **PERMIT UNIT REQUIREMENTS**

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623]
3. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
4. 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-1327-140-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NE03 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

ONE 250 BBL FIXED ROOF CRUDE OIL WASH TANK #2 (THETA LEASE)

## PERMIT UNIT REQUIREMENTS

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1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
2. Crude oil throughput shall not exceed 50 barrels per day based on a monthly average. [District Rule 4623]
3. Permittee shall maintain monthly records of average daily crude oil throughput and shall submit such information to the APCO 30 days prior to the expiration date indicated in the Permit to Operate. [District Rule 4623]
4. 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-1327-146-0

EXPIRATION DATE: 02/28/2014

SECTION: NW02 TOWNSHIP: 26S RANGE: 20e

## EQUIPMENT DESCRIPTION:

10,000 BBL FIXED ROOF CRUDE OIL STOCK TANK T-120 SERVED BY VAPOR CONTROL SYSTEM LISTED ON PERMIT S-1326-126

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
3. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623]
4. 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 2201]
5. 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 2201]
6. 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 2201]
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 2201]
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 2201]
9. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 2201]
10. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
11. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080]
13. This tank shall be degassed before commencing interior cleaning by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia. [District Rule 2080]
14. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080]
15. To facilitate connection to an external APCO-approved recovery system, a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080]
16. After a tank has been degassed pursuant to the requirements of this permit, vapor control requirements are not applicable until an organic liquid having a TVP of 0.5 psia or greater is placed, held, or stored in this tank. [District Rule 2080]
17. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080]
18. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080]
19. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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



# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-155-2

EXPIRATION DATE: 02/28/2014

SECTION: 2 & 11 TOWNSHIP: 26S RANGE: 20E

## EQUIPMENT DESCRIPTION:

85 MMBTU/HOUR STEAM GENERATOR EQUIPPED WITH NORTH AMERICAN MODEL 4231-85-GLE ULTRA LOW NOX BURNER (OR EQUIVALENT) WITH FLUE GAS RECIRCULATION (FGR) AND OXYGEN CONTROLLER (SG #8)

## PERMIT UNIT REQUIREMENTS

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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. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. Authorized locations for this equipment are 1/4 Sections NE11 and NW02 of T26S, R20E [District Rule 2201]
5. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be installed, utilized and maintained. [District Rules 2201, 4305, 4306, and 4320]
6. The unit shall only be fired on gaseous fuel that includes PUC quality natural gas, tank vapor recovery gas, and gas produced during thermally enhanced oil recovery (TEOR) operation or a mixture of any of these fuels. [District Rule 2201]
7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. Sulfur content in the gaseous fuel shall not exceed 1.0 grain per 100 dry standard cubic feet. [District Rule 2201]
9. Heat input to this unit shall not exceed 655,248 MMBtu in any one calendar year. [District Rule 2201]
10. Emission rates shall not exceed: PM10: 0.0035 lb/MMBtu, VOC: 0.0055 lb/MMBtu, NOx (as NO2): 7 ppmvd NOx @ 3% O2, or CO: 25 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, and 4320]
11. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be quarterly. If a quarterly fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 1070, 2201, 4305, 4306, and 4320]
12. 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, double GC for H2S and mercaptans, performed in the laboratory. Should the applicant decide to use different methodology, the methodology must be approved by the District prior to its use. [District Rule 1070, 2201, 4305, 4306, and 4320]
13. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201, 4305, 4306, and 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 2201, 4305, 4306, and 4320]
15. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201, 4305, 4306, and 4320]
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306, and 4320]
17. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201, 4305, 4306, and 4320]
18. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]
19. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201, 4305, 4306, and 4320]
20. 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]
21. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rules 2201, 4305, 4306, and 4320]
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
23. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 2201, 4305, 4306, and 4320]
24. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 2201, 4305, 4306, and 4320]
25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. The permittee shall maintain cumulative monthly records of heat input in MMBtu to demonstrate compliance with the permitted annual heat input rate. [District Rules 2201, 4305, 4306, and 4320]
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, 2201, 4305, 4306, and 4320]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-159-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

30,000 GALLON FIXED ROOF HYDROCHLORIC ACID (HCL) STORAGE TANK VENTED THROUGH A FUME SCRUBBER SHARED WITH S-1326-160, #T-651

## PERMIT UNIT REQUIREMENTS

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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. Tank throughput shall not exceed 10,000 gallons of hydrochloric acid solution per day. [District Rule 4102]
4. Tank shall not receive liquids or solutions containing volatile organic compounds (VOC). [District Rules 2201 and 4623]
5. Tank shall only vent to packed column hydrochloric acid fume scrubber shared with tank S-1327-160. [District Rule 4102]
6. Packed column water supply pump shall deliver once through tap water and operate continuously at a rate of no less than 4 gpm when filling either tank S-1327-159 or '-160. [District Rule 4102]
7. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102]
8. Operator shall keep records of the chemical composition and volume of all liquids received by the tank. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201, 4102, and 4623]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-160-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** NW02 **TOWNSHIP:** 26S **RANGE:** 20E

**EQUIPMENT DESCRIPTION:**

30,000 GALLON FIXED ROOF HYDROCHLORIC ACID (HCL) STORAGE TANK VENTED THROUGH A FUME SCRUBBER SHARED WITH S-1326-159 #T-652

## PERMIT UNIT REQUIREMENTS

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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. Tank throughput shall not exceed 10,000 gallons of hydrochloric acid solution per day. [District Rule 4102]
4. Tank shall not receive liquids or solutions containing volatile organic compounds (VOC). [District Rules 2201 and 4623]
5. Tank shall only vent to packed column hydrochloric acid fume scrubber shared with tank S-1327-159. [District Rule 4102]
6. Packed column water supply pump shall deliver once through tap water and operate continuously at a rate of no less than 4 gpm when filling either tank S-1327-159 or '-160. [District Rule 4102]
7. Scrubber shall be operated and maintained in accordance with the manufacturer's recommendations. [District Rule 4102]
8. Operator shall keep records of the chemical composition and volume of all liquids received by the tank. Records shall be retained on-site for a minimum of five years and made available for District inspection upon request. [District Rules 2201, 4102, and 4623]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-169-0

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

## EQUIPMENT DESCRIPTION:

750 BBL FIXED ROOF WASH TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1327-170, '-171, '-172 AND '-173 INCLUDING HEAT EXCHANGER, HEATER TREATER, COMPRESSOR(S), TWO COMPRESSORS DRIVEN BY PERMIT-EXEMPT IC ENGINES, AN H<sub>2</sub>S SCRUBBER AND A 21.6 MMBTU/HR SONIC FLARE

## PERMIT UNIT REQUIREMENTS

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1. Operation may include permit exempt heater treater and water heater which shall only be fired on LPG or natural gas containing no more than 1.0 gr S/100scf and no more than 5% by weight hydrocarbons heavier than butane. [District Rule 2020]
2. No gas-fired internal combustion engines with a rated horsepower greater than 50 bhp shall be operated at facility without prior District approval. [District Rule 2020]
3. Collected sludge from water treatment facility shall be stored and handled in a manner that will not cause or allow evaporation of VOC to the atmosphere. [District Rule 2201]
4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1/4 or 5% opacity. [District Rule 2201]
5. Vapor control system shall serve S-1327-169, '-170, '-171, '-172, '-173, and 76 bbl heater treater. [District Rule 2201]
6. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201]
7. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
8. There shall be no leaks in excess of 10,000 ppmv when measured with a portable hydrocarbon detection instrument calibrated with methane in accordance with EPA Method 21. [District Rule 2201]
9. The tank and tank vapor recovery system, including all piping, valves, and fittings shall be maintained in a leak-free condition. [District Rule 2201]
10. The tank shall be equipped with a fixed roof with no holes or openings. [District Rule 2201]
11. This tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and sends to a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control devices shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4 of District Rule 4623 and/or injection into DOGGR-approved disposal well. [District Rules 2201 and 4623]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rules 2201 and 4623]
13. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
14. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
15. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201]
16. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201]
17. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 2201]
18. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 2201]
19. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
20. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
21. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201]
22. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 1.3 lb/day. [District Rule 2201]
23. Uncondensed vapors shall be incinerated in the flare and/or injected into DOGGR-approved disposal well. [District Rule 2201]
24. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
25. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623, 5.7]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

26. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623, 5.7]
27. Flare shall be equipped with waste gas volume flow metering system. [District Rule 2201]
28. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311]
29. Maximum amount of waste gas combusted shall not exceed 21.458 MMBtu/hour. [District Rule 2201]
30. Measured heating value and quantity of gas flared shall be used to determine compliance with heat input limits. [District Rule 2201]
31. Sulfur content of produced flared gas shall not exceed 1.0 gr/100 scf. [District Rule 2201]
32. Flare emissions shall not exceed any of the following: 0.068 lb-NO<sub>x</sub>/MMBtu, 0.008 lb-PM<sub>10</sub>/MMBtu, 0.370 lb-CO/MMBtu, or 0.063 lb-VOC/MMBtu. [District Rule 2201]
33. Operator shall conduct quarterly sampling of the sulfur content of the gas flared. If 8 consecutive quarterly samplings show compliance, then sampling frequency shall only be required annually. [District Rule 2201]
34. Permittee shall determine sulfur content of gas flared using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans or Draeger tube analysis. Sulfur content of waste 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]
35. Records of the waste gas sulfur content and daily records of waste gas flow rate shall be maintained, retained on the premises, and made available for District inspection on request. [District Rule 2201]
36. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201]
37. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
38. Formerly S-3100-3. [District Rule]

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



# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-170-0

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

## EQUIPMENT DESCRIPTION:

500 BBL FIXED ROOF CRUDE OIL SHIPPING TANK SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

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1. Tank shall only vent to vapor control system listed on S-1327-3. [District Rule 2201]
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201]
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201]
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.1 lb/day. [District Rule 2201]
6. Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201]
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623. [District Rule 2201]
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
10. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
11. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after minimization. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201]
13. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 2201]
14. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 2201]
15. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
16. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
17. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201]
18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
19. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623, 5.7]
20. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Section 5.7 of Rule 4623. [District Rule 4623, 5.7]
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
22. Formerly S-3100-4. [District Rule]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-171-0

EXPIRATION DATE: 02/28/2014

## EQUIPMENT DESCRIPTION:

1,000 BBL FIXED CONE ROOF PRODUCTION/SHIPPING TANK (21 .5 FT X 16 FT) WITH P/V VENT CONNECTED TO VAPOR CONTROL SYSTEM LISTED ON PERMIT UNIT S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Tank shall vent only to vapor control system listed on S-1327-169. [District Rule 2201]
3. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201]
4. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
5. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201]
6. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.21 lb/day. [District Rule 2201]
7. This tank shall only vent to a vapor recovery system. The vapor recovery system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4 of District Rule 4623. [District Rules 2201 and 4623]
8. The tank and all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. A leak-free condition is a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rules 2201 and 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. [District Rule 4623]
11. 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]
12. Formerly S-3100-9. [District Rule]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-172-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW35 **TOWNSHIP:** 11N **RANGE:** 21W

**EQUIPMENT DESCRIPTION:**

1000 BBL FIXED ROOF STOCK TANK T-130-B SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

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1. Tank shall only vent to vapor control system listed on S-1327-169. [District Rule 2201]
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201]
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201]
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.1 lb/day. [District Rule 2201]
6. Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 2201]
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
10. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
11. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after detection. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201]
13. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 2201]
14. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 2201]
15. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
16. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
17. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201]
18. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
19. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623, 5.7]
20. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 6 of Rule 4623. [District Rule 4623, 5.7]
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
22. Formerly S-3100-11. [District Rule]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-173-0

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

## EQUIPMENT DESCRIPTION:

1000 BBL FIXED ROOF STOCK TANK T-130-A SERVED BY VAPOR CONTROL SYSTEM LISTED ON S-1327-169 (PLEITO LEASE)

## PERMIT UNIT REQUIREMENTS

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1. Tank shall only vent to vapor control system listed on S-1327-169. [District Rule 2201]
2. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201]
3. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
4. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201]
5. VOC fugitive emissions from the components in gas service on the tank and vapor control system piping shall not exceed 0.1 lb/day. [District Rule 2201]
6. Tank shall only vent to a vapor control system. The vapor control system shall be an APCO-approved system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be maintained in a leak-free condition. The VOC control device shall be a flare that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.7 of District Rule 4623. [District Rule 4623]
7. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 2201]
8. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A gas leak or a liquid leak is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 2201]
9. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 2201]
10. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 2201]
11. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) eliminate or minimize the leak within 8 hours after detection, (b) if the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices and eliminate the leak within 48 hours after detection. In no event shall the total time to minimize and eliminate the leak exceed 56 hours after detection. [District Rule 2201]
13. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of SJVUAPCD Rule 4623. [District Rule 2201]
14. If a component type is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 2201]
15. Any component affixed to the tank or within 5 feet of the tank that is found to be leaking on two consecutive annual inspections is in violation of SJVUAPCD Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 2201]
16. Operator shall maintain an inspection log containing the following 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 1070]
17. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2020]
18. Permittee shall keep in their facility at all times a copy of the letter sent to the APCO requesting participation in the Rule 4623 Fixed Roof Tank Preventive Inspection and Maintenance Program, and Tank Interior Cleaning Program, and maintain the records of annual tank inspections, maintenance, and cleaning to document the participation in the program. [District Rule 4623, 5.7]
19. Permittee shall comply with all applicable Tank Interior Cleaning Program requirements specified in Table 6 of Rule 4623. [District Rule 4623, 5.7]
20. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201]
21. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
22. Formerly S-3100-12. [District Rule]

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1327-174-0

**EXPIRATION DATE:** 02/28/2014

**SECTION:** SW35 **TOWNSHIP:** 11N **RANGE:** 21W

**EQUIPMENT DESCRIPTION:**

250 BHP CUMMINS MODEL QSB7-G3 NR3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY STANDBY IC ENGINE  
POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart III]
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, 40 CFR Part 60 Subpart III]
7. Emissions from this IC engine shall not exceed any of the following limits: 1.85 g-NOx/bhp-hr, 0.85 g-CO/bhp-hr, or 0.07 g-VOC/bhp-hr. [District Rule 2201 and 13 CCR 2423 and 17 CCR 93115]
8. Emissions from this IC engine shall not exceed 0.09 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201]
9. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart III]
10. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
11. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702]
12. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
14. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 50 hours per calendar year. [District Rule 4702, 17 CCR 93115 and 40 CFR Part 60 Subpart III]
15. The permittee shall maintain monthly records of the type of fuel purchased. [District Rule 4702 and 17 CCR 93115]
16. 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 Rule 4702 and 17 CCR 93115]
17. Formerly S-3100-15. [District Rule]

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1327-175-0

EXPIRATION DATE: 02/28/2014

SECTION: SW35 TOWNSHIP: 11N RANGE: 21W

**EQUIPMENT DESCRIPTION:**

UP TO FOUR INSITU COMBUSTION WELLS SERVED BY VAPOR CONTROL SYSTEM

## PERMIT UNIT REQUIREMENTS

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1. All components shall be maintained in good working condition. [District Rule 4407]
2. Casing vents of the 4 in-situ combustion wells will be piped into a casing header which is connected to the gas scrubber, flare and/or blanket gas and fuel system. [District Rule 2201]
3. Maximum VOC content of hydrocarbons in the vapor handling components shall not exceed 65% by weight. [District Rule 2201]
4. VOC content shall be tested initially and annually thereafter using methods and procedures approved by the District. VOC sampling shall be conducted under circumstances representative of normal operation. VOC content shall be analyzed using the latest version of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 422. [District Rule 1070]
5. Leaks shall be inspected and repaired as specified in Rule 4407. [District Rule 4407]
6. Operator shall visually inspect for liquid leaks, and with a portable hydrocarbon detection instrument conducted in accordance with EPA Method 21 for gas leaks. [District Rules 2201 and 4407]
7. A leak is defined as a reading as methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm, when measured at the surface of the component interface where leakage could occur, with a portable hydrocarbon detection instrument calibrated with methane, or a dripping of liquid organic compounds at a rate of three (3) drops or more per minute. A gas leak in excess of 10,000 ppmv above background is a violation of this permit and shall be reported as a deviation. [District Rules 2201 and 4407]
8. Fugitive VOC emissions rate shall be calculated using CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities Table IV-2c, Oil and Gas Production Screening Value Ranges Emission Factors (Feb 1999). [District Rule 2201]
9. VOC fugitive emissions from the well components in gas service and vapor control system piping shall not exceed 0.2 lb/day. [District Rule 2201]
10. Permittee shall maintain with the permit accurate fugitive component counts and resulting emissions calculated using District approved emission factors from EPA Protocol for Equipment Emission Estimates Table 2-4. [District Rule 1070 & 2201]
11. The operator shall maintain records of operations of each well undergoing stimulation including well number and location, well stimulation start-up and shut down dates, and list of equipment operated, on a monthly basis. [District Rule 4407]
12. Permittee shall maintain a written record of the VOC content of the gas sampled. [District Rule 2201]
13. The operator shall maintain an inspection and maintenance log which contains the date of each inspection, the date of discovery of leaking components, and the date of repair. [District Rule 4407]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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14. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]
15. Formerly S-3100-16. [District Rule]

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