San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

OCT 31 2011

Martin Lundy
Chevron USA, Inc.
P.O. Box 1392
Bakersfield, CA 93302

Re: Notice of Preliminary Decision - Title V Permit Renewal
District Facility # S-1128
Project # S-1054424

Dear Mr. Lundy:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Chevron USA, Inc. for its oilfield facility located at the Heavy Western Stationary Source in Kern County, California.

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

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

Sincerely,

David Warner
Director of Permit Services

Attachments
C: Derek Fukuda, Permit Services Engineer

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
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Central Region (Main Office)
1990 E. Gettysburg Avenue
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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

OCT 31 2011

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

Re: Notice of Preliminary Decision - Title V Permit Renewal
District Facility # S-1128
Project # S-1054424

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Chevron USA, Inc. for its oilfield facility located at the Heavy Western Stationary Source in Kern County, California.

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

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

Sincerely,

David Warner
Director of Permit Services

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AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

OCT 31 2011

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

Re: Notice of Preliminary Decision – Title V Permit Renewal
District Facility # S-1128
Project # S-1054424

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Chevron USA, Inc. for its oilfield facility located at the Heavy Western Stationary Source in Kern County, California.

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

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

Sincerely,

David Warner
Director of Permit Services

Attachments
C: Derek Fukuda, Permit Services Engineer

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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Bakersfield Californian

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

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to Chevron USA, Inc. for its oilfield facility located at the Heavy Western Stationary Source in Kern County, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1054424, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

SAN JOAQUIN VALLEY
AIR POLLUTION CONTROL DISTRICT

Title V Permit Renewal Evaluation
Chevron USA Inc.
S-1128

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TITLE V PERMIT RENEWAL EVALUATION

Heavy Oil Production Operation

Engineer: Derek Fukuda
Date: October 25, 2011

Facility Number: S-1128
Facility Name: Chevron USA Inc.
Mailing Address: P O Box 1392
Bakersfield, CA 93302

Contact Name: Martin Lundy
Phone: (661) 654-7142

Responsible Official: Michael Jennings
Title: Assistant Secretary

Project # : S-1054424
Deemed Complete: August 9, 2005

I. PROPOSAL

Chevron USA Inc. was issued a Title V permit on April 25, 2001. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

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

II. FACILITY LOCATION

Chevron USA Inc. is located at Heavy Oil Western Stationary Source in Kern County.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is not proposing to use any model general permit templates as a part of this Title V renewal project.

V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, Exemptions
  (amended September 17, 1998 ⇒ amended August 18, 2011)

- District Rule 2201, New and Modified Stationary Source Review Rule
  (amended August 20, 1998 ⇒ amended April 21, 2011)

- District Rule 2520, Federally Mandated Operating Permits
  (adopted June 15, 1995 ⇒ amended June 21, 2001)

- District Rule 4101, Visible Emissions
  (amended December 17, 1992 ⇒ amended February 17, 2005)

- District Rule 4305, Boilers, Steam Generators, Process Heaters – Phase 2
  (amended December 19, 1996 ⇒ amended August 21, 2003)

- District Rule 4351, Boilers, Steam Generators, Process Heaters – Phase 1
  (amended October 19, 1995 ⇒ amended August 21, 2003)

- District Rule 4401, Steam-Enhanced Crude Oil Production Well Vents
  (amended January 18, 1998 ⇒ amended June 16, 2011)

- District Rule 4601, Architectural Coatings
  (amended September 17, 1997 ⇒ December 17, 2009)

- District Rule 4623, Storage of Organic Liquids
  (amended December 17, 1992 ⇒ amended May 19, 2005)

- District Rule 4703, Stationary Gas Turbines
  (amended October 16, 1997 ⇒ amended September 20, 2007)

- 40 CFR Part 60, Subpart A, General Provisions

- 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Industrial Steam Generators

- 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines

B. Rules Removed

- District Rule 4403, Components Serving Light Crude Oil or Gases at Light Crude Oil and Gas Production Facilities and Components at Natural Gas Processing Facilities *(amended April 20, 2005)*

  This rules requirements were no longer applicable after April 20, 2006 and were replaced by District Rule 4409.

- District Rule 4701, Internal Combustion Engines *(amended August 21, 2003)*

  Since all the engines at this facility are emergency diesel-fire engines, they have been updated to meet the more stringent requirements of District Rule 4702.

- District Rules 8020, 8030, and 8060, Fugitive Dust (PM_{10}) Emissions *(amended April 25, 1996)*

  These rules were removed on November 15, 2001 and were replaced by District Rules 8021, 8031, and 8061.

C. Rules Added

- District Rule 4306, Boilers, Steam Generators and Process Heaters – Phase 3 *(adopted September 18, 2003 ⇒ amended October 16, 2008)*

- District Rule 4311, Flares *(adopted June 20, 2002 ⇒ Amended June 18, 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 4702, Internal Combustion Engines *(adopted August 21, 2003 ⇒ amended August 18, 2011)*

- District Rule 8011, General Requirements
  (adopted November 15, 2001; amended August 19, 2004)

- District Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities
  (adopted November 15, 2001; amended August 19, 2004)

- District Rule 8031, Bulk Materials
  (adopted November 15, 2001 ⇒ amended August 19, 2004)

- District Rule 8041, Carryout and Trackout
  (adopted November 15, 2001 ⇒ amended August 19, 2004)

- District Rule 8051, Open Areas
  (adopted November 15, 2001 ⇒ amended August 19, 2004)

- District Rule 8061, Paved and Unpaved Roads
  (adopted November 15, 2001 ⇒ amended August 19, 2004)

- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas
  (adopted November 15, 2001 ⇒ amended September 16, 2004)

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

D. Rules Not Updated

- District Rule 1080, Stack Monitoring *(amended December 17,1992)*

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

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

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

- District Rule 2031, Transfer of Permits *(amended December 17, 1992)*

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

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

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

- District Rule 4406, Sulfur Compounds from Steam Generators – Kern County *(amended December 17, 1992)*
- District Rule 4801, Sulfur Compounds (Non-SIP replacement for Kern County Rule 108.1) *(amended December 17, 1992)*
- 40 CFR Part 61, Subpart M, National Emissions Standards for Asbestos
- 40 CFR Part 64, Compliance Assurance Monitoring (CAM)[1]
- 40 CFR Part 82, Subpart F, Stratospheric Ozone

VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

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

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

A. Rules Adopted

None

B. Rules Not Updated

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

For this facility, condition 41 of the facility-wide requirements S-1128-0-2 is based on the rule listed above and are not Federally Enforceable through Title V.

- District Rule 4406, Sulfur Compounds From Oil-Field Steam Generators – Kern County
  (amended December 17, 1992)

[1] The requirements of 40 CFR Part 64 have not been updated since the time of the last Title V permitting action. However, the requirements of this part were not previously addressed for any of these permit units. Therefore, even though the requirements have not been updated since the time of the initial Title V permitting action, this part will be discussed in Section VII of this evaluation.

VIII. PERMIT REQUIREMENTS

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

Dormant Emission Units:

Permit units S-1128-6, -11, -14, -15, -17, -26, -44, -45, -56, -61, -335, -336, -337, -374, and -375 are currently out of operation and are designated as dormant emission units by District Permit conditions. Permit conditions have been added to these permit units requiring that an Authority to Construct permit must be acquired before the facility operates the units. In addition, the facility will be required to submit an application to comply with Title V requirements of District Rule 2520 prior to operating. Therefore these permit units will not be evaluated further in this permitting action.

A. District Rule 2020 – Exemptions

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

B. District Rule 2201 – New and Modified Stationary Source Review Rule

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

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

5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable to the permits being renewed as a part of this project.

However, the facility applied for, received, and implemented Authorities to Construct for the permit units in the following table. The modifications performed in these ATC's will be reflected in the facility's renewed TV permits.

ATC's Converted with the Title V Renewal			
ATC's	**ATC Project**	**Modification Type**	**Description of Modification**
-4-19, -5-19, -15-25, -16-22, -17-21, -18-24, -19-21, -21-25, -25-27, -26-23, -28-18, -35-29, -36-18, -38-18, 48-20, -57-12, -58-12, -66-18, -68-9, -75-12, -76-10, -79-9, -80-10, -111-12, -112-11, -159-11, -337-6	S-1010326	MM	Install variable frequency drive on combustion air blower motor.
-4-20, -15-26, -16-23, -17-22, -18-25, -19-22, -21-26, -28-19, -29-28, -30-29, -31-28, -32-30, -33-33, -34-33, -36-19, -48-21, -57-13, -58-13, -75-13, 112-12, -159-12, -337-7	S-1010441	AA	Allow the use of nine different types of burner diffuser plates.
-4-27, -68-14, -79-14	S-1082279	MM	Upgrade the convection sections, clarify startup, shutdown, and source testing conditions, remove redundant natural gas sulfur conditions.
-4-29	S-1090938	MM	Replace existing FGR piping and control valve
-5-28	S-1071295	MM	Designate as DEU for Rule 4306.
-7-6, 303-6	S-1055539	AA	Install low-NO_X burner or retrofit to meet Rule 4306 NO_X emission limits.
-7-8, -8-8, -303-8	S-1074748	MM	Install 10 hp blower on steam generator.

-8-7, -302-6, -303-7	S-1070718	MM	Designate as DEU for Rule 4306.
-15-24, -16-21, -17-20, -18-23, -19-20, -30-26, -32-27, -33-30, -34-30, -36-17, -38-17, -48-19, -57-11, -58-11, -68-8, -79-8, -80-9, -111-11, -112-10, -113-8, -159-10, -337-5, -360-4, -361-4	S-1001258	MM – before facility received TV permit	Revise alternate monitoring conditions to only require monitoring during months of operation.
-15-29	S-1045110	AA	Install low-NO_X burner for Rule 4306 NO_X emission limits.
-15-32, -18-31	S-1063195	MM	Replace blower motor with 100 hp motor.
-18-32, -617-14	S-1065118	MM	Allow vapors to be directly injected into burner, burner ring, or natural gas duel line connected to the burner.
-21-37, -28-30, -112-22	S-1095193	MM	Modify burner to increase heat input to 69.0 MMBtu/hr, replace air/fuel mixer and/or upgrade FGR system, lower NO_X, SO_x, and PM_{10} emission limits for Rule 4320 compliance.
-25-35	S-1045020	AA	Install low-NO_X burner for Rule 4306 NO_X emission limits.
-25-37	S-1063007	MM	Replace or upgrade radiant and convection sections.
-26-33, -28-25	S-1063080	MM	Designate unit -26 as DEU. Replace or upgrade the radiant and convection sections and add various specified locations for unit -28.
-28-20	S-1031116	AA	Install low NO_X burner and VFD for blower motor, and add O2 analyzer for FGR control.
-29-39, -30-38, -31-38, -32-39, -33-42, -34-42	S-1064554	AA	Establish the minimum control efficiency of the shared SO2 scrubber at 95% and correct PSD condition references and remove non-applicable PSD requirements.
-58-17	S-1055023	AA	Install low-NO_X burner to meet Rule 4306 NO_X emission limits.
-61-8, -335-7, -336-7, -337-11	S-1060461	MM	Designate unit as a DEU.
-116-45	S-1060547	MM	Install new Gauge Setting #8.
-116-47	S-1073894	MM	Install a sour gas injection compressor (K-900) powered by an electric motor.
-116-48	S-1073894	MM	Install a sour gas booster compressor (K-450) powered by an electric motor.
-116-49	S-1074611	MM	Retrofit sour gas booster compressors K-100 and K-200 with larger cylinders.

-116-51	S-1080491	MM	Add one DOGGR approved sour gas disposal well to the existing sour gas injection system.
-116-52, -128-18, -130-17, -144-14	S-1084916	MM	changing the term "steam drive" wells to steam-enhanced wells and add a condition that will allow well casing vents or downstream valves to be closed; directing production to vapor-controlled tanks.
-248-36	S-1084921	MM	Remove four slop oil tanks (PTOs S-1128-253, '-255, '-257, and '-300) that have been cleaned and removed from service from the vapor recovery system listed on this permit.
-337-3	S-980332	MM	Install FIR for Rule 4305 compliance.
-360-12, -361-11	S-1054977	AA	Limit annual heat input to 30 billion Btu for Rule 4306 compliance.
-385-48	S-1065121	MM	Install two fin-fan gas cooler, one gas/liquid separator vessel and associated piping, and add 100 steam enhanced wells.
-385-54	S-1084693	MM	Install additional automatic well test and associated piping and components.
-385-56	S-1095191	MM	Add additional 100 wells
-617-11, 954-0	S-1063768	MM	New tank connected to vapor recovery on permit -617 (ERCs for -954-0 withdrawn)
-617-12, -618-8, -621-7, -622-8, -623-8, -625-9, -954-1	S-1064947	MM	For all units lower TVP to < 0.5 psia. For unit -617 also increase control efficiency for vapor recovery to 99%, and update tank conditions.

C. District Rule 2520 – Federally Mandated Operating Permits

This rule was recently amended to incorporate several administrative corrections, clarify rule language, and add procedures for implementing compliance schedules. The only amendments to this rule that will have an effect on current permit requirements are the corrections to Section 9 rule references, as described in the following table:

Old Rule Section	Corrected Rule Section
9.3	9.2
9.4	9.3
9.5	9.4
9.6	9.5
9.7	9.6
9.8	9.7
9.9	9.8

9.10	9.9
9.11	9.10
9.12	9.11
9.13	9.12
9.14	9.13
9.15	9.14
9.16	9.15
9.17	9.16
9.18	9.17
9.19	9.18

Rule 2520, Section 6.4.4, "Other Changes Not Requiring Title V Permit Amendment," allowed the permittee to implement changes, including the addition of new emissions units, without triggering the permit modification or amendment requirements until the time of Title V permit renewal, provided the conditions described in Sections 6.4.4.1 through 6.4.4.2 were met.

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.

1. <u>All Permits:</u>

- Mapping or identification of specific permit conditions that have been updated due to the change in the reference sections of this Rule is not necessary. Every District Rule 2520 section reference on each permit has been updated according to the table above.

D. District Rule 4101 – <u>Visible Emissions</u>

District Rule 4101 has been submitted to the EPA to replace SIP approved Rule 401 (all counties of the SJVUAPCD). EPA made a preliminary determination that District Rule 4101 is "more stringent" than the county versions previously referenced, per correspondence dated August 20, 1996.

<u>Section 5.0</u> 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 Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101. Condition 22 of the facility-wide requirements of S-1128-0-2 ensures compliance.

E. District Rule 4305 – Boilers, Steam Generators, Process Heaters – Phase 2

The purpose of this rule is to limit emissions oxides of nitrogen (NOx) and carbon monoxide (CO) from the operation of boilers, steam generators, and process heaters.

Compliance with the requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-4-24	10 through 18, 20, 21, 22, 24, 25, 27 through 31, 34 and 37
S-1128-5-25	13, 17 through 24, 26, 27, 28, 30, 31, and 35
S-1128-7-5	13 through 21, 23, 24, 25, 27, 28, and 32
S-1128-8-5	13 through 21, 23, 24, 25, 27, 28, 31, and 32
S-1128-16-26	8, 12 through 23, 25, 26, 28, 29, 30, 31, 32, and 35
S-1128-18-29	1, 16, 21 through 28, 30, 31, 32, 34, 35, 37 through 41, and 44
S-1128-19-25	6, 10 through 17, 19, 20, 21, 23, 24, 26 through 30, and 33
S-1128-21-31	8, 13, 15, 17 through 23, 25, 26, 27, 29, 30, and 34
S-1128-25-36	11, 13 through 20, 23, 24, 26, 27, 29 through 33, and 36
S-1128-27-24	12, 13, 16 through 22, 24, 25, 26, 28, 29, 31 through 35, and 38
S-1128-28-22	10, 14, 16, 18 through 24, 26, 27, 28, 30, 31, and 35
S-1128-29-38	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, 26, and 40
S-1128-30-37	1, 2, 5 through 11, 13, 14, 15, 17, 18, 20 through 24, 27, and 30
S-1128-31-36	1, 2, 4 through 13, 15, 16, 18 through 22, and 25
S-1128-32-38	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, and 26
S-1128-33-41	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, and 26
S-1128-34-41	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, and 26
S-1128-35-33	5, 6, 9 through 15, 17, 18, 19, 21, 22, 24 through 28, and 31
S-1128-36-23	12, 14, 17 through 23, 25, 26, 27, 29, 30, 32 through 26, and 39

S-1128-38-26	11, 13, 16 through 22, 24, 25, 26, 28, 29, and 31
S-1128-48-25	17 through 24, 26, 27, 28, 30, 31, 33 through 37, and 40
S-1128-57-16	8, 11 through 17, 19, 20, 21, 23, 24, 26 through 30, and 33
S-1128-58-15	1, 14, 17 through 23, 25, 26, 27, 29, 30, and 34
S-1128-66-22	8, 9, 12 through 18, 20, 21, 22, 24, 25, 27 through 31, and 34
S-1128-68-13	8, 9, 12 through 18, 20, 21, 22, 24, 25, 27 through 31, and 34
S-1128-75-18	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-76-14	11 through 16, 18, 19, 20, 22, 23, and 27
S-1128-77-17	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-79-13	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-80-16	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-111-16	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-112-15	9, 13, 15 through 22, 24, 25, 26, 28, 29, 31 through 35, and 38
S-1128-113-15	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-154-24	10, 12, 13, 16 through 22, 24, 25, 26, 28, 29, 31 through 35, and 38
S-1128-159-17	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-302-4	1, 11, 14, 15, 18 through 24, 26, 27, 28, 30, 31, and 35
S-1128-303-5	1, 10, 14, 15, 18 through 24, 26, 27, 28, 30, 31, and 35
S-1128-360-9	9 through 19, 21, 22, 23, 25, 26, 28 through 32, and 35
S-1128-361-8	7, 10 through 19, 21, 22, 23, 25, 26, 28 through 32, and 35
S-1128-941-3	7, 9, 10, 13 through 19, 21, 22, 23, 25, 26, 28 through 32, and 35
S-1128-952-2	6, 14 through 22, 24, 25, 26, 28, 29, and 33

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

The purpose of this rule is to limit emissions oxides of nitrogen (NO_x) and carbon monoxide (CO) from the operation of boilers, steam generators, and process heaters.

Section 5.1, NO_X and CO Emissions Limits

Section 5.1.1 requires that except for units subject to Sections 5.2, NO_x and carbon monoxide (CO) emissions shall not exceed the limits specified in the following table. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 3.0 percent by volume stack gas oxygen. Emission concentrations shall be corrected to 3.0 percent oxygen in accordance with Section 8.1.

Since permit units S-1128-4-24, -5-25, -16-26, -18-29, -19-25, -21-31, -25-36, -27-24, -28-22, -29-38, -30-37, -31-36, -32-38, -33-41, -34-41, -35-33, -36-23, -38-26, -48-25, -57-16, -58-15, -66-22, -68-13, -75-18, -76-14, -77-17, -79-13, -80-16, -111-16, -112-15, -113-15, -154-24, -159-17, -941-3, and -952-2 are used as oilfield steam generators, the applicable emission limit category is listed in Section 5.1.1, Table 1, Category C, from District Rule 4306.

Since permit units S-1128-7-5, -8-5, -302-4, -303-5, -360-9, and –361-8 are limited by permit condition to 30 billion Btu/year, the applicable emission limit category is listed in Section 5.1.1, Table 1, Category H, from District Rule 4306.

Category	Operated on gaseous fuel		Operated on liquid fuel	
	NO_X Limit	CO Limit	NO_X Limit	CO Limit
C. Oilfied Steam Generators	15 ppmv or 0.018 lb/MMBtu	400 ppmv	40 ppmv or 0.052 lb/MMBtu	400 ppmv
H. Units limited by a Permit to Operate to an annual heat input of 9 billion Btu/year to 30 billion Btu/year	30 ppmv or 0.036 lb/MMBtu	400 ppmv	40 ppmv or 0.052 lb/MMBtu	400 ppmv

Section 5.2, Low Use

The units at this facility annual heat input will exceed the 9 billion Btu heat input per calendar year criteria limit addressed by this section. Since the units are not subject to Section 5.2, the requirements of this section will not be discussed.

Section 5.3, Startup and Shutdown Provisions

Section 5.3 states that on and after the full compliance schedule specified in Section 7.1, the applicable emission limits of Sections 5.1, 5.2.2 and 5.2.3 shall not apply during start-up or shutdown provided an operator complies with the requirements specified in Sections 5.3.1 through 5.3.4.

Section 5.3.1 states that the duration of each start-up or each shutdown shall not exceed two hours, except as provided in Section 5.3.3.

Section 5.3.2 states that the emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown.

Section 5.3.3 states that notwithstanding the requirement of Section 5.3.1, an operator may submit an application for a Permit to Operate condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions in specified in Sections 5.3.3.1 through 5.3.3.3.

Section 5.3.4 states that Permit to Operate (PTO) modifications solely to include start-up or shutdown conditions may be exempt from Best Available Control Technology (BACT) and emission offset requirements if the PTO modifications meet the requirements of Rule 2201 (New or Modified Stationary Source Review Rule) Section 4.2 (BACT Exemptions) and Rule 2201 Section 4.6 (Offset Exemptions).

Section 5.4, Monitoring Provisions

Section 5.4.1 states that the operator of any unit which simultaneously fires gaseous and liquid fuels, and is subject to the requirements of Section 5.1, shall install and maintain an operational non-resettable, totalizing mass or volumetric flow meter in each fuel line to each unit. Volumetric flow measurements shall be periodically compensated for temperature and pressure.

Section 5.4.2 states that the operator of any unit subject to the applicable emission limits in Sections 5.1 shall install and maintain an operational APCO approved Continuous Emissions Monitoring System (CEMS) for NOx, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System.

An APCO approved CEMS shall comply with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Part 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures, and applicable provisions of Rule 1080 (Stack Monitoring). An APCO approved Alternate Monitoring System shall monitor one or more of the following:

- periodic NOx and CO exhaust emission concentrations,
- periodic exhaust oxygen concentration,
- flow rate of reducing agent added to exhaust,
- catalyst inlet and exhaust temperature,
- catalyst inlet and exhaust oxygen concentration,
- periodic flue gas recirculation rate,
- other operational characteristics.

Section 5.4.3 states requirements for units that are limited to a heat input less than 9 billion Btu per year. The applicant does not operate any units that are limit to a annul heat input less than 9 billion Btu; therefore the requirements of this section are not applicable to the unit in this project.

Section 5.4.4 states that the operator of any Category H unit listed in Section 5.1.1 Table 1 and any unit subject to Section 5.2.1 or 5.2.2 shall install and maintain an operational non-resettable, totalizing mass or volumetric flow meter in each fuel line to each unit. Volumetric flow measurements shall be periodically compensated for temperature and pressure. A master meter, which measures fuel to all units in a group of similar units, may satisfy these requirements if approved by the APCO in writing. The cumulative annual fuel usage may be verified from utility service meters, purchase or tank fill records, or other acceptable methods, as approved by the APCO.

Section 5.4.5 states the requirements for an APCO approve alternative monitoring system. The applicant only uses APCO approved monitoring schemes; therefore the requirements of this section are not applicable to the unit in this project.

Section 5.5, Compliance Determination

Section 5.5.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in Section 5.1. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling).

Section 5.5.2 requires that 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.

Section 5.5.4 requires that for emissions monitoring pursuant to Sections 5.4.2, 5.4.2.1, and 6.3.1 using a portable NO_x analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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.

Section 5.5.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit.

Section 6.1, Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.4 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

Section 6.1.1 applies to units seeking exemption under Section 4.2. None of the units at this facility are subject to the exemption.

Section 6.1.2 requires that the operator of a unit subject to Category H unit listed in Section 5.1.1 Table 1 or to Section 5.2 shall record the amount of fuel use at least on a monthly basis.

Section 6.1.3 requires that the operator of a unit subject to Section 5.2.1 or 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics have been performed. Section 6.3.1 states that tune-ups required by Sections 5.2.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored. All the units in this project maintain an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored; therefore the requirements of this section are not applicable to the units in this project.

Section 6.1.4 requires the operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown.

Section 6.2, Test Methods

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

Pollutant	Units	Test Method Required
NO_X	ppmv	EPA Method 7E or ARB Method 100
NO_X	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O_2	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

In addition, fuel hhv shall be certified by third party fuel supplier or determined by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels; 6.2.1.2 ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels.

Section 6.3, Compliance Testing

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.1 and 5.2.3 not less than once every 12 months.

In addition, since the applicant has proposed to use pre-approved Alternate Monitoring Scheme "A" using a portable analyzer, the tune-up requirements listed in Section 6.3.1 are not applicable to the steam generators. Section 6.3.1 also requires that, during the 36-month source testing interval, the owner/operator shall monthly monitor the operational characteristics recommended by the unit manufacturer. Since the pre-approved Alternate Monitoring Scheme "A" using a portable analyzer requires monthly monitoring of NO_X, CO, and O_2 exhaust emissions concentrations, operational characteristics monitoring requirement is satisfied, and no further discussion is required.

Section 6.3.2 states that in lieu of compliance with Section 6.3.1, compliance with the applicable emission limits in Sections 5.1 or 5.2.3 shall be demonstrated by submittal of annual emissions test results to the District from a unit or units that represents a group of units, provided:

- All units in the group are initially source tested. The emissions from all test runs from units within the group are less than 90% of the permitted value, and the emissions do not vary greater than 25% from the average of all test runs; and
- All units in a group are similar in terms of rated heat input, make and series, operational conditions, fuel used, and control method. No unit with a rated heat input greater than 100 MMBtu shall be considered as part of the group; and
- The group is owned by a single owner and is located at a single stationary source; and
- Selection of the representative unit(s) is approved by the APCO prior to testing; and
- The number of representative units source tested shall be at least 30% of the total number of units in the group. The representative tests shall rotate each year so that within three years all units in the group have been tested at least once.
- All units in the group shall have received the similar maintenance and tune-up procedures as the representative unit(s) as listed in the Permit to Operate. The operator shall submit to the APCO the specific maintenance procedures to be performed on each unit that will be included in the group for representative testing. Such maintenance procedures shall be specified in the Permit to Operate for units that are included in the group for representative testing. Any maintenance work on a unit which has no effect on emissions standards and which is not specified in the maintenance procedures shall be submitted to the APCO for approval before such unit can be included as part of the group for representative testing. Any unit that necessitates any maintenance work which has an effect on emission standards and is beyond the maintenance procedures identified in the Permit to Operate, shall not be included as part of the group for representative testing. The unit shall be source tested in accordance with the provisions of Section 6.3.1; and
- Should any of the representative units exceed the required emission limits, each of the units in the group shall demonstrate compliance by emissions testing. Failure to complete emissions testing within 90 days of the failed test shall result in the untested units being in violation of this rule. After compliance with the requirements of Section 6.3.2.7 has been demonstrated, subsequent source testing shall be performed pursuant to Sections 6.3.1 or 6.3.2.

Compliance with the requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-4-24	10 through 18, 20, 21, 22, 24, 25, 27 through 31, 34 and 37
S-1128-5-25	13, 17 through 24, 26, 27, 28, 30, 31, and 35
S-1128-7-5	13 through 21, 23, 24, 25, 27, 28, and 32
S-1128-8-5	13 through 21, 23, 24, 25, 27, 28, 31, and 32
S-1128-16-26	8, 12 through 23, 25, 26, 28, 29, 30, 31, 32, and 35
S-1128-18-29	1, 16, 21 through 28, 30, 31, 32, 34, 35, 37 through 41, and 44
S-1128-19-25	6, 10 through 17, 19, 20, 21, 23, 24, 26 through 30, and 33
S-1128-21-31	8, 13, 15, 17 through 23, 25, 26, 27, 29, 30, and 34
S-1128-25-36	11, 13 through 20, 23, 24, 26, 27, 29 through 33, and 36
S-1128-27-24	12, 13, 16 through 22, 24, 25, 26, 28, 29, 31 through 35, and 38
S-1128-28-22	10, 14, 16, 18 through 24, 26, 27, 28, 30, 31, and 35
S-1128-29-38	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, 26, and 40
S-1128-30-37	1, 2, 5 through 11, 13, 14, 15, 17, 18, 20 through 24, 27, and 30
S-1128-31-36	1, 2, 4 through 13, 15, 16, 18 through 22, and 25
S-1128-32-38	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, and 26
S-1128-33-41	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, and 26
S-1128-34-41	1, 2, 4 through 10, 12, 13, 14, 16, 17, 19 through 23, and 26
S-1128-35-33	5, 6, 9 through 15, 17, 18, 19, 21, 22, 24 through 28, and 31
S-1128-36-23	12, 14, 17 through 23, 25, 26, 27, 29, 30, 32 through 26, and 39
S-1128-38-26	11, 13, 16 through 22, 24, 25, 26, 28, 29, and 31
S-1128-48-25	17 through 24, 26, 27, 28, 30, 31, 33 through 37, and 40
S-1128-57-16	8, 11 through 17, 19, 20, 21, 23, 24, 26 through 30, and 33
S-1128-58-15	1, 14, 17 through 23, 25, 26, 27, 29, 30, and 34
S-1128-66-22	8, 9, 12 through 18, 20, 21, 22, 24, 25, 27 through 31, and 34

S-1128-68-13	8, 9, 12 through 18, 20, 21, 22, 24, 25, 27 through 31, and 34
S-1128-75-18	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-76-14	11 through 16, 18, 19, 20, 22, 23, and 27
S-1128-77-17	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-79-13	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-80-16	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-111-16	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-112-15	9, 13, 15 through 22, 24, 25, 26, 28, 29, 31 through 35, and 38
S-1128-113-15	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-154-24	10, 12, 13, 16 through 22, 24, 25, 26, 28, 29, 31 through 35, and 38
S-1128-159-17	10, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, and 36
S-1128-302-4	1, 11, 14, 15, 18 through 24, 26, 27, 28, 30, 31, and 35
S-1128-303-5	1, 10, 14, 15, 18 through 24, 26, 27, 28, 30, 31, and 35
S-1128-360-9	9 through 19, 21, 22, 23, 25, 26, 28 through 32, and 35
S-1128-361-8	7, 10 through 19, 21, 22, 23, 25, 26, 28 through 32, and 35
S-1128-941-3	7, 9, 10, 13 through 19, 21, 22, 23, 25, 26, 28 through 32, and 35
S-1128-952-2	6, 14 through 22, 24, 25, 26, 28, 29, and 33

G. District Rule 4311 – Flares

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares. This rule applies to all facilities operating flares.

Current District Rule 4311 (amended 6/18/09) has not been SIP approved. Attachment D contains the streamlining of the SIP approved District Rule 4311 (6/20/02) to the current District Rule 4311 to show the current rule is as stringent if not more than the SIP approved version.

Section 5.1 states that flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.6 and 5.7.

Since the flare in unit S-1128-116 is only used as an emergency flare, it will not be subject to the requirements of these sections.

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

Section 5.3 requires that 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.

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 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 that 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 that 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 flare in unit S-1128-116 is an emergency flare, and therefore exempt from this requirement.

Section 5.7 requires ground-level enclosed flares to meet the emission standards listed in the table below. The flare in unit S-1128-116 is an emergency flare, and therefore exempt from this requirement.

Ground Level Enclosed Flare Emission Standards		
Type of Flare and Heat Release Rate in MMBtu/hr	VOC (lb/MMBtu)	NO_X (lb/MMBtu)
Without Steam-assist		
< 10 MMBtu	0.0051	0.0952
10 – 100 MMBtu	0.0027	0.1330
> 100 MMBtu	0.0013	0.5240
With Steam-assist		
All	0.14 as TOG	0.068

Section 5.8 requires that effective on and after July 1, 2011, flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere.

Unit S-1128-934 is not located at a petroleum refinery and has a burner rating less than 5.0 MMBtu/hr; therefore it is not subject to the requirements of Section 6.5. The flare in unit S-1128-116 is an emergency flare and will only be operated during an emergency; therefore it is not subject to the requirements of Section 6.5

Section 5.9 discusses the petroleum refinery SO2 performance targets. Since this facility is not a petroleum refinery, this section is not applicable.

Section 6.1 states that the following records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

- Copy of the compliance determination conducted pursuant to Section 6.4.1.
- Copy of the source testing result conducted pursuant to Section 6.4.2.
- For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation.
- Operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.
- Effective on and after July 1, 2011, a copy of the approved flare minimization plan pursuant to Section 6.5.
- Effective on and after July 1, 2012, where applicable, a copy of annual reports submitted to the APCO pursuant to Section 6.2.
- Effective on and after July 1, 2011, where applicable, monitoring data collected pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10.

Section 6.2.1 and 6.2.2 both state requirements for units subject to flare minimization plans. As discussed previously in this compliance section, both units at this facility are not subject to flare minimization plans.

Section 6.2.3 states that effective on and after July 1, 2012, and annually thereafter, the operator of a flare subject to flare monitoring requirements pursuant to Sections 5.10, 6.6, 6.7, 6.8, 6.9, and 6.10, as appropriate, shall

submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following:

- The total volumetric flow of vent gas in standard cubic feet for each day.
- Hydrogen sulfide content, methane content, and hydrocarbon content of vent gas composition pursuant to Section 6.6.
- If vent gas composition is monitored by a continuous analyzer or analyzers pursuant to Section 5.11, average total hydrocarbon content by volume, average methane content by volume, and depending upon the analytical method used pursuant to Section 6.3.4, total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month.
- If the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month.
- For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow.
- Flare monitoring system downtime periods, including dates and times.
- For each day and for each month provide calculated sulfur dioxide emissions.
- A flow verification report for each flare subject to this rule. The flow verification report shall include flow verification testing pursuant to Section 6.3.5.

Compliance with the reporting requirements of this rule is demonstrated with the permit conditions listed in the table below.

Section 6.3.1 states that VOC, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) by using the following equation:

$$\text{VOC in lb/MMBtu} = \frac{(\text{ppmv dry}) \times (F, \text{dscf / MMBtu})}{(1.135 \times 10^6) \times (20.9 - \%\ O_2)}$$

Where: F = As determined by EPA Method 19

Section 6.3.2 requires that NOx emissions in pounds per million BTU shall be determined by using EPA Method 19.

Section 6.3.3 requires that NOx and O_2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100.

Section 6.3.4 states that effective on and after July 1, 2011 operators subject to vent gas composition monitoring requirements pursuant to Section 6.6 shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA:

- Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B,
- Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88.
- If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes.
- If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85.

Section 6.3.5 states that for purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA:

- EPA Methods 1 and 2;
- A verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10.
- Tracer gas dilution or velocity.
- Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter.

Section 6.4.1 states that upon request, the operator of flares that are subject to Section 5.6 shall make available, to the APCO, the compliance determination records that demonstrate compliance with the provisions of 40 CFR 60.18, (c)(3) through (c)(5). The flare in unit S-1128-116 is an emergency flare, and therefore exempt from the emission requirements of Section 5.6. Unit S-1128-934-2 is subject to this requirement.

Section 6.4.2 states that the operator of ground-level enclosed flares shall conduct source testing at least once every 12 months to demonstrate compliance with Section 5.7. The operator shall submit a copy of the testing protocol to the APCO at least 30 days in advance of the scheduled testing.

The operator shall submit the source test results not later than 45 days after completion of the source testing. The flare in unit S-1128-116 is an emergency flare, and therefore exempt from the emission requirements of Section 5.7. Unit S-1128-934-2 is subject to this requirement.

Sections 6.5 states that by July 1, 2010, the operator of a petroleum refinery flare or any flare that has a flaring capacity of greater than or equal to 5.0 MMBtu per hour shall submit a flare minimization plan (FMP) to the APCO for approval. Unit S-1128-934 is not located at a petroleum refinery and has a burner rating less than 5.0 MMBtu/hr; therefore it is not subject to the requirements of Section 6.5. The flare in unit S-1128-116 is an emergency flare and will only be operated during an emergency; therefore it is not subject to the requirements of Section 6.5

Section 6.6 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor vent gas composition using one of the five methods pursuant to Section 6.6.1 through Section 6.6.5 as appropriate. Unit S-1128-934 is not subject to the requirements of Section 6.6. The flare in unit S-1128-116 is subject to the requirements of Section 6.6.

Section 6.7 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. Unit S-1128-934 is not subject to the requirements of Section 6.7. The flare in unit S-1128-116 is subject to the requirements of Section 6.7.

Section 6.8 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour 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. Unit S-1128-934 is not subject to the requirements of Section 6.8. The flare in unit S-1128-116 is subject to the requirements of Section 6.8.

Section 6.9 states that effective on and after July 1, 2011, the operator of a petroleum refinery flare or any flare that has a flaring capacity equal to or greater than 50 MMBtu per hour shall comply with the following, as applicable:

6.9.1 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.

6.9.2 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.

6.9.3 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.

6.9.4 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.

Unit S-1128-934 is not subject to the requirements of Section 6.6. The flare in unit S-1128-116 is subject to the requirements of Section 6.6.

Section 6.10 applies to petroleum refinery flares. None of the flares at this facility are petroleum refinery flares; therefore the requirements of this section do not apply.

Section 7.0 establishes the compliance schedule requirements for existing and new flares. Permit units S-1128-116-43 and S-1128-934-2 are existing flares and are operating in compliance with the requirements of this rule. Therefore, no further discussion is required.

Compliance with the requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	32 through 51
S-1128-934-2	1 through 11

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

This rule limits NOx, CO, SO_2, and PM_{10} emissions from boilers, steam generators and process heaters rated greater than 5 MMBtu/hr. This rule also provides a compliance option of payment of fees in proportion to the actual amount of NOx emitted over the previous year. The steam generators at this facility are rated at greater than 5 MMBtu/hr heat input. Therefore, the requirements of this rule are applicable to each unit.

Section 5.1 states 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.

The facility has chosen to comply with this rule by paying annual emissions fees.

Section 5.3, Annual Fee Calculation

Per Section 5.3.1, on and after January 1, 2010, an operator, with units that will comply under Section 5.1.2, shall pay a total annual fee to the District based on the total NOx emissions from those units. That fee shall be calculated in the following manner.

- The operator shall calculate the total emissions for all units operating at a stationary source that will comply with Section 5.1.2. The total NOx emissions shall be calculated in accordance with Section 5.3.1.3.

- The total annual emissions fee shall be calculated in accordance with Section 5.3.1.4. These calculations include only the units that have been identified to comply under Section 5.1.2.
- Total Emissions (TE) Calculation

$$\text{Total TE} = \Sigma E(\text{unit})$$

Where: $\Sigma E(\text{unit})$ = Sum of all NOx emissions from each unit, in tons per year.

$$E(\text{unit}) = \frac{EF\ (\text{unit}) \times AFU\ (\text{Unit})}{2{,}000\ \text{lb per ton}}$$

Where: E(unit) = Annual NOx emissions for each unit, in tons/year.
EF(Unit) = NOx Emission Limit for the Permit to Operate, in lb/MMBtu
AFU(Unit) = actual amount of fuel, in MMBTU, used by each unit during the previous calendar year.

- Total Annual Fee Calculation

Total Annual Fee = (Total TE x FR) + Administrative Fee

Where: FR (Fee Rate) = The cost of NOx reductions, in dollars per ton, as established pursuant to Sections 7.2 and 7.6 of District Rule 9510, as adopted on December 15, 2005. Under no circumstances shall the cost of NOx reductions exceed the cost effectiveness threshold for the Carl Moyer Cost Effectiveness as established by the applicable state law.

Administrative Fee = 4% x (Total TE x FR)

- The operator shall pay the total annual fee to the District, no later than July 1 of each year, for the emissions of the previous calendar year. The first payment is due to the District no later than July 1, 2010. Should July 1 fall on a day when the District is closed, the payment shall be made by the next District working day after July 1.

Per 5.3.2 Payments shall continue annually until the unit either is permanently removed from use in the San Joaquin Valley Air Basin and the Permit to Operate is surrendered or the operator demonstrates compliance with applicable NOx emissions limits shown in Table 2:

Table 2 Applicable NOx Emission Limits for Section 5.3.2		
Category	**Date of Compliance Demonstration**	**Applicable NOx Emissions Limit from Table 1**
A. Units with only a Standard Schedule in Table 1.	Either prior to or after the Standard Compliance Deadline	Standard NOx Limit
B. Units with both Standard and Enhanced Schedules in Table 1.	Prior to the Enhanced Compliance Deadline	Standard NOx Limit
	After the Enhanced Compliance Deadline	Enhanced NOx Limit
C. Units with both Standard and Staged Enhanced Schedules in Table 1.	Prior to the Initial Limit Compliance Deadline	Standard NOx Limit
	After the Initial Limit Deadline but before the Final Limit Deadline	Initial NOx Limit then the Final NOx Limit by the applicable Compliance Deadline
	After the Final Limit Deadline	Final NOx Limit

Per 5.3.2.1, the emissions fee for units that operate for less than the full calendar year before demonstrating compliance under Section shall be based on the actual fuel used during the portion of the calendar year prior to demonstrating that compliance or removing the unit from operation within the San Joaquin Valley Air Basin.

Per 5.3.3 Operators of units for which an annual emissions fee is provided must also certify that the units meet federal RACT control requirements at the time the annual fee is provided.

Section 5.4, Particulate Matter Control Requirements

Section 5.4 lists the control requirements for particulate matter. Section 5.4.1 states that to limit particulate matter emissions, an operator shall comply with one of the following requirements:

5.4.1.1 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall fire units exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;

5.4.1.2 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or

5.4.1.3 On and after the applicable NOx Compliance Deadline specified in Section 5.2 Table 1, operators shall install and properly operate an emission control system that reduces SO2 emissions by at least 95% by weight, or limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% O2.

5.4.1.4 Notwithstanding the compliance deadlines indicated in Sections 5.4.1.1 through 5.4.1.3, refinery units, which require modification of refinery equipment to reduce sulfur emissions, shall be in compliance with the applicable requirement in Section 5.4.1 no later than July 1, 2013.

Section 5.4.2 states that liquid fuel shall be used only during PUC quality natural gas curtailment periods, provided the requirements of Sections 4.2 and 6.1.5 are met and the fuel contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.2. No units at this facility are permitted to operate on liquid fuels. Therefore, the requirements of this section are not applicable

Section 5.5, Low Use

Section 5.5 applies only to low use boilers installed prior to January 1, 2009 and are limited to less than or equal to 1.8 billion Btu per calendar year. No units at this facility are limited to less than 1.8 billion Btu per calendar year heat input. Therefore, the requirements of this section are not applicable.

Section 5.6, Startup and Shutdown Provisions

Section 5.6 establishes the requirements for units subject to startup and shutdown requirements. Permit units C-447-1, '-2, '-3 and '-4 all contain startup and shutdown provisions. Therefore, these units are subject to the requirements of this section. Section 5.6 states that the applicable emission limits of Sections 5.1 shall not apply during start-up or shutdown provided an operator complies with the requirements specified in below.

5.6.1 The duration of each start-up or each shutdown shall not exceed two hours, except as provided in Section 5.3.3.

5.6.2 The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown.

5.6.3 Notwithstanding the requirement of Section 5.3.1, an operator may submit an application to a Permit to Operate condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions in specified in Sections 5.3.3.1 through 5.3.3.3.

Section 5.7, Monitoring Provisions

Section 5.7.1 requires that permit units subject to the emission limits specified in Section 5.2 shall either install and maintain an operational APCO approved Continuous Emission Monitoring System (CEMS) for NO_X, CO and O_2, or implement an APCO-approved alternate monitoring.

Sections 5.7.2 and 5.7.3 apply to units subject to the requirements of Section 5.5. No units at this facility are subject to Section Section 5.5; therefore Sections 5.7.2 and 5.7.3 do not apply.

Section 5.7.4 applies to seasonal sources. The facility is not a seasonal source. Therefore, this section does not apply.

Section 5.7.5 states that the APCO shall not approve an alternative monitoring system or parametric monitoring system unless it is documented that continued operation within ranges of specified emissions-related performance indicators or operational characteristics provides a reasonable assurance of compliance with applicable emission limits.

The facility has proposed to use an APCO-approved Alternate Monitoring System (Monitoring Scheme A). Therefore, the requirements of this section are not applicable.

Section 5.7.6 outlines requirements for monitoring SO_x emissions. Section 5.7.6.1 requires the operator of any unit that proposes to comply with Section 5.4.1.1 (fire exclusively on PUC-quality natural gas, commercial propane, butane, LPG, or a combination of these fuel gases) or Section 5.4.1.2 (fuel sulfur content limit of 5 grains/100 scf) to provide an annual fuel analysis.

Section 5.8, Compliance Determination

Section 5.8.1 states that the operator of any unit shall have the option of complying with either the applicable heat input, in lb/MMBtu, emission limits or the concentration, in ppmv, emission limits specified in Section 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling).

Section 5.8.2 states that 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.

Section 5.8.3 states that all continuous emissions monitoring system (CEMS) emission measurements shall be averaged over a period of 15 consecutive minutes to demonstrate compliance with the applicable emission limits of this rule. Any 15-consecutive-minute block average CEMS measurement exceeding the applicable emission limits of this rule shall constitute a violation of this rule.

Section 5.8.4 states that for emissions monitoring pursuant to Sections 5.7.1 and 6.3.1 using a portable NO_X analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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 readings evenly spaced out over the 15-consecutive-minute period.

Section 5.8.5 states that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, 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.

Section 6.1, Recordkeeping

Section 6.1 states that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

Section 6.1.1 states that any unit operated under the exemption of Section 4.2 shall monitor and record, for each unit, the cumulative annual hours of operation on each fuel other than natural gas during periods of natural gas curtailment and equipment testing. None of the units operated at this facility are subject to the exemption listed in Section 4.2. Therefore, the requirements of this section are not applicable.

Section 6.1.2 applies to any unit that is subject to the requirements of Section 5.5. None of the units operated at this facility are subject to the requirements of Section 5.5. Therefore, the requirements in this section are not applicable.

Section 6.1.3 requires that the operator of a unit subject to Section 5.5.1 or 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics have been performed. The units operated at this facility are not subject to the requirements of Section 5.5.1 or the tune-up and monitoring requirements of Section 6.3.1. Therefore, the requirements in this section are not applicable.

Section 6.1.4 states that the operator performing start-up or shutdown of a unit shall keep records of the duration of each start-up or shutdown.

Section 6.1.5 states the operator of any unit firing on liquid fuel during a PUC-quality natural gas curtailment period shall record the sulfur content of the fuel, amount of fuel used, and duration of the natural gas curtailment period.

Section 6.2, Test Methods

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

Pollutant	Units	Test Method Required
NO_X	ppmv	EPA Method 7E or ARB Method 100
NO_X	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
SO_X	ppmv	EPA Method 6C, EPA Method 8, or ARB Method 100
Stack Gas O_2	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

Section 6.3, Compliance Testing

Section 6.3.1 requires that units be tested to determine compliance with the applicable requirements of Section 5.2 not less than once every 12 months. Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits specified in Section 5.2, the source testing frequency shall revert to at least once every 12 months.

Section 6.3.2 states that in lieu of compliance with Section 6.3.1, compliance with the applicable emission limits in Section 5.2 shall be demonstrated by submittal of annual emissions test results to the District from a unit or units that represents a group of units.

Section 6.4 states that no later than January 1, 2010, the operator of any unit shall submit to the APCO for approval an Emissions Control Plan. The compliance deadline for this requirement has already passed, and the facility

has already submitted their Emissions Control Plan. Therefore, this section is no longer applicable.

Compliance with the requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-4-24	11 through 18, 20, 21, 22, 24, 25, 27 through 31, 34, 37, 38, and 39
S-1128-5-25	36 and 37
S-1128-7-5	33 and 34
S-1128-8-5	33 and 34
S-1128-16-26	36 and 37
S-1128-18-29	45 and 46
S-1128-19-25	34 and 35
S-1128-21-31	5, 8, 11, 13, 17 through 23, 25, 26, 27, 29, 30, 34, and 35
S-1128-25-36	8, 9, 11, 13 through 20, 22, 23, 24, 26, 27, 29, 30, 31, 32, 33, 36, 37, 38, and 39
S-1128-27-24	10, 13, 16 through 22, 24, 25, 26, 28, 29, 31 through 35, 38, 39, and 40
S-1128-28-22	4, 7, 10, 14, 16, 18 through 24, 26, 27, 28, 30, 31, 35, and 36
S-1128-29-38	27 and 28
S-1128-30-37	31 and 32
S-1128-31-36	27 and 28
S-1128-32-38	27 and 28
S-1128-33-41	27 and 28
S-1128-34-41	28 and 29
S-1128-35-33	6, 9, 10 through 15, 17, 18, 19, 21, 22, 24, 25, 26, 27, 28, 31, 32, 33, and 34
S-1128-36-23	40 and 41
S-1128-38-26	39 and 40
S-1128-48-25	41 and 42
S-1128-57-16	34 and 35
S-1128-58-15	35 and 36
S-1128-66-22	6, 9, 12 through 18, 20, 21, 22, 24, 25, 27 through 31, 34, 35, and 36
S-1128-68-13	6, 9, 12 through 18, 20, 21, 22, 24, 25, 27 through 31, 34, 35, and 36
S-1128-75-18	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29, 30, 31, 32, 33, 36, 37, and 38
S-1128-76-14	28 and 29

S-1128-77-17	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29, 30, 31, 32, 33, 36, 37, and 38
S-1128-79-13	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29, 30, 31, 32, 33, 36, 37, and 38
S-1128-80-16	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, 36, 37, and 38
S-1128-111-16	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, 36, 37, and 38
S-1128-112-15	4, 9, 11, 13, 15 through 22, 24, 25, 26, 28, 29, 31 through 35, 38, 39, 40, and 41
S-1128-113-15	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, 36, 37, and 38
S-1128-154-24	10, 13, 16 through 22, 24, 25, 26, 28, 29, 31 through 35, 38, 39, and 40
S-1128-159-17	8, 11, 14 through 20, 22, 23, 24, 26, 27, 29 through 33, 36, 37, and 38
S-1128-302-4	36 and 37
S-1128-303-5	36 and 37
S-1128-360-9	36 and 37
S-1128-361-8	36 and 37
S-1128-941-3	7, 10, 13 through 19, 21, 22, 23, 25, 26, 28, 29, 30, 31, 32, 35, 36, and 37
S-1128-952-2	34 and 35

I. District Rule 4401 – Steam-Enhanced Crude Oil Production Well Vents

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

Current District Rule 4401 (amended 6/16/11) has not been SIP approved. Attachment D contains the streamlining of the SIP approved District Rule 4401 (12/4/06) to the current District Rule 4401 to show the current rule is as stringent if not more than the SIP approved version.

Section 3.0, Definitions

Section 3.20 defines a leak as: the dripping of VOC-containing liquid or the detection of a concentration of total organic compound, above background, determined according to the test method specified in Section 6.3.3 that exceeds the values specified in Table 1, Section 3.20.2 and Section 3.20.2 of this rule. Any liquid or gas coming from a component undergoing repair or

replacement, or during sampling of process fluid from a component into a container is not considered a leak provided such activities are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

Table 1 - Gas Leak in ppmv as Methane		
Type of Components	Major Gas Leak	Minor Gas Leak
1. PRDs	Greater than 10,000	400 to 10,000
2. Components other than PRDs	Greater than 10,000	2,000 to 10,000

Section 3.20.1 defines Major Liquid Leak as: a visible mist or a continuous flow of liquid that is not seal lubricant.

Section 3.20.2 defines Minor Liquid Leak as: a liquid leak, except seal lubricant, that is not a major liquid leak and drips liquid at a rate of more than three drops per minute.

Section 3.50 defines the VOC collection and control system as "An APCO-approved system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system."

Definitions of the terms discussed above are listed as permit conditions as show in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	52 and 53
S-1128-118-16	15 and 16
S-1128-125-16	11 and 12
S-1128-128-17	7 and 8
S-1128-130-16	8 and 9
S-1128-144-10	7 and 8
S-1128-160-6	3 and 4

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	8 and 9
S-1128-162-6	5 and 6
S-1128-385-39	12 and 13
S-1128-390-7	4 and 5
S-1128-839-6	3 and 4
S-1128-921-5	3 and 4

Section 4.0, Exemptions

Section 4.1 states that any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing is exempt from the requirements of this Rule.

This exemption is listed as a permit condition on the permits as show in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	54
S-1128-118-16	17
S-1128-125-16	13
S-1128-128-17	9
S-1128-130-16	10
S-1128-144-10	9
S-1128-160-6	5

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	10
S-1128-162-6	7
S-1128-385-39	14
S-1128-390-7	6
S-1128-839-6	5
S-1128-921-5	5

Section 5.0, Requirements

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

Section 5.1.1 requires that the steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere.

Section 5.1.2 requires that 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.

Compliance with these sections is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	55
S-1128-118-16	18
S-1128-125-16	14
S-1128-128-17	10
S-1128-130-16	11
S-1128-144-10	10
S-1128-160-6	6

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	11
S-1128-162-6	8
S-1128-385-39	15
S-1128-390-7	7
S-1128-839-6	6
S-1128-921-5	6

Section 5.2.1 requires that an operator shall be in violation of this rule if any District inspection demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility or if any operator inspection conducted pursuant to Section 5.4 demonstrates that one or more of the conditions in Section 5.2.2 exist at the facility.

Section 5.2.2 requires that the following conditions shall be used for determination of violation during an inspection pursuant to the provisions of Section 5.2.1:

5.2.2.1 Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere.

5.2.2.2 Existence of a component with a major liquid leak as defined in Section 3.0.

5.2.2.3 Existence of a component with a gas leak greater than 50,000 ppmv.

5.2.2.4 Existence of a component leak described in Section 5.2.2.4.1 through Section 5.2.2.4.3 in excess of the allowable number of leaks specified in Table 3.

5.2.2.4.1 A minor liquid leak, or

5.2.2.4.2 A minor gas leak, or

5.2.2.4.3 A gas leak greater than 10,000 ppmv up to 50,000 ppmv.

Table 2 - Number of Allowable Leaks	
Number of Steam-Enhanced Crude Oil Production Wells Connected to a VOC Collection and Control System	Number of Allowable Leaks
1 to 25	3
26 to 50	6
51 to 100	8
101 to 250	10
251 to 500	15
More than 500	One (1) for each 20 wells tested with a minimum of 50 wells tested.

Compliance with the leak standards pursuant to Section 5.2 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	56
S-1128-118-16	19
S-1128-125-16	15
S-1128-128-17	11
S-1128-130-16	12
S-1128-144-10	11
S-1128-160-6	7

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	12
S-1128-162-6	9
S-1128-385-39	16
S-1128-390-7	8
S-1128-839-6	7
S-1128-921-5	7

Section 5.3.1 requires that an operator shall not use any component with a leak as defined in Section 3.0, or that is found to be in violation of the provisions of Section 5.2.2. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of this rule.

Section 5.3.2 requires that 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.

Section 5.3.3 requires that an operator shall comply with the requirements of Section 6.7, if there is any change in the description of major components or critical components. Section 6.7 requires that by January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

Compliance with the operating requirements in Sections 5.3 is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	57, 58, and 85
S-1128-118-16	20, 21, and 48
S-1128-125-16	16, 17, and 44
S-1128-128-17	12, 13, and 40
S-1128-130-16	13, 14, and 41
S-1128-144-10	12, 13, and 40
S-1128-160-6	8, 9, and 36

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	13, 14, and 41
S-1128-162-6	10, 11, and 38
S-1128-385-39	17, 18, and 45
S-1128-390-7	9, 10, and 37
S-1128-839-6	8, 9, and 36
S-1128-921-5	8, 9, and 36

Section 5.4.1 requires that except for pipes and unsafe-to-monitor components, as operator shall inspect all other components pursuant to the requirements of Section 6.3.3 at least once every year.

Section 5.4.2 requires that 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 this rule.

Section 5.4.3 requires that in addition to the inspections required by Section 5.4.1, an operator shall inspect for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service as follows:

5.4.3.1 An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week.

5.4.3.2 Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of this rule.

Section 5.4.4 requires that in addition to the inspections required by Section 5.4.1, Section 5.4.2 and Section 5.4.3, an operator shall perform the following inspections:

5.4.4.1 An operator shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. An operator shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection.

5.4.4.2 An operator shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service.

5.4.4.3 Except for PRDs subject to the requirements of Section 5.4.4.1, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced.

Section 5.4.7 requires that an operator shall inspect all unsafe-to-monitor components during each turnaround.

Section 5.4.8 requires that a District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator.

Compliance with the inspection and re-inspection requirements of Section 5.4 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	57 through 65
S-1128-118-16	22 through 28
S-1128-125-16	18 through 24
S-1128-128-17	14 through 20
S-1128-130-16	15 through 21
S-1128-144-10	14 through 20
S-1128-160-6	10 through 16

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	15 through 21
S-1128-162-6	12 through18
S-1128-385-39	19 through 25
S-1128-390-7	11 through 17
S-1128-839-6	10 through 16
S-1128-921-5	10 through 16

Section 5.5.1 requires that an operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. An operator shall include the following information on the tag:

1) The date and time of leak detection.
2) The date and time of leak measurement.
3) For a gaseous leak, the leak concentration in ppmv.
4) For a liquid leak, whether it is a major liquid leak or a minor liquid leak.
5) Whether the component is an essential component, an unsafe-to-monitor component, or a critical component.

Section 5.5.2 requires that an operator shall keep the tag affixed to the component until an operator has met all of the following conditions:

1) Repaired or replaced the leaking component, and
2) Re-inspected the component using the test method in Section 6.3.3, and
3) The component is found to be in compliance with the requirements of this rule.

Section 5.5.3 requires that 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.

Section 5.5.4 requires that except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0, an operator shall comply with at least one of the requirements of Section 5.5.4.1, Section 5.5.4.2, or Section 5.5.4.3 as soon as practicable but not later than the time period specified in Table 3.

5.5.4.1 Repair or replace the leaking component; or

5.5.4.2 Vent the leaking component to a VOC collection and control system as defined in Section 3.0, or

5.5.4.3 Remove the leaking component from operation.

Table 3 - Repair Period

Type of Leak	Repair Period in Calendar Days
Minor Gas Leak	14
Major Gas Leak less than or equal to 50,000 ppmv	5
Gas Leak Greater than 50,000 ppmv	2
Minor Liquid Leak	3
Major Liquid Leak	2

Section 5.5.5 requires that 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.

Section 5.5.6 requires that the time of the initial leak detection shall be the start of the repair period specified in Table 3.

Section 5.5.7 requires that 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.

Compliance with the leak repair requirements of Section 5.5 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	66 through 71
S-1128-118-16	29 through 34
S-1128-125-16	25 through 30
S-1128-128-17	21 through 26
S-1128-130-16	22 through 27
S-1128-144-10	21 through 26
S-1128-160-6	15 through 22

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	22 through 27
S-1128-162-6	17 through 24
S-1128-385-39	26 through 31
S-1128-390-7	16 through 23
S-1128-839-6	15 through 22
S-1128-921-5	15 through 22

Section 6.1, Recordkeeping and Submissions

Section 6.1 requires that an operator shall maintain the records required by Sections 6.1 and 6.2 for a period of five (5) years. These records shall be made available to the APCO upon request.

Section 6.1.1 requires that 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.

Section 6.1.2 states that a small producer shall maintain monthly records of county-specific crude oil production. The facility is not a small producer. Therefore this section is not applicable.

Section 6.1.3 states that the 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.

Section 6.1.4 states that an inspection log shall be maintained pursuant to Section 6.4.

Section 6.1.5 states that 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.

Section 6.1.6 states that an operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5.

Section 6.1.7 states that an operator shall keep a copy of the APCO-approved Operator Management Plan at the facility.

Sections 6.1.8 and 6.1.9 specify recordkeeping and submission requirements for gauge tanks. This permit covers thermally enhanced oil recovery wells and does not include any gauge tanks. Therefore, the requirements of these sections are not applicable to this operation and no further discussion is required.

Compliance with the recordkeeping requirements of Section 6.1 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	72 through 76, 82, and 83
S-1128-118-16	35 through 39, 45, and 46
S-1128-125-16	31 through 36, 41, and 42
S-1128-128-17	27 through 32, 37, and 38
S-1128-130-16	28 through 33, 38, and 39
S-1128-144-10	27 through 32, 37, and 38
S-1128-160-6	23 through 28, 33, and34

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	28 through 33, 38, and 39
S-1128-162-6	25 through 30, 35, and 36
S-1128-385-39	32 through 37, 42, and 43
S-1128-390-7	24 through 29, 34, and 35
S-1128-839-6	23 through 28, 33, and 34
S-1128-921-5	23 through 28, 33, and 34

Section 6.2, Compliance Source Testing

Section 6.2.1 requires that 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 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.

Section 6.2.2 states that the APCO may waive 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.

Section 6.2.3 specifies compliance testing requirements for gauge tanks. This permit covers thermally enhanced oil recovery wells and does not include any gauge tanks. Therefore, the requirements of this section are not applicable to this operation and no further discussion is required.

Compliance with the source testing requirements of Section 6.2 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	77
S-1128-118-16	40
S-1128-125-16	36
S-1128-128-17	32
S-1128-130-16	33
S-1128-144-10	32
S-1128-160-6	28

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	33
S-1128-162-6	30
S-1128-385-39	37
S-1128-390-7	29
S-1128-839-6	28
S-1128-921-5	28

Section 6.3, Test Methods

Section 6.3.1 specifies that 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.

Section 6.3.2 requires that the VOC content shall be shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be analyzed by CARB Method 432.

Section 6.3.3 specifies that leak detection shall be performed with a portable hydrocarbon detection instrument in accordance with 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.

Section 6.3.4 requires that 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.

Compliance with the test method requirements of Section 6.3 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	78 through 81
S-1128-118-16	41 through 44
S-1128-125-16	37 through 40
S-1128-128-17	33 through 36
S-1128-130-16	34 through 37
S-1128-144-10	33 through 36
S-1128-160-6	29 through 32

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	34 through 37
S-1128-162-6	31 through 34
S-1128-385-39	38 through 41
S-1128-390-7	30 through 33
S-1128-839-6	29 through 32
S-1128-921-5	29 through 32

Section 6.4, Inspection Log

Section 6.4 states that an operator shall maintain an inspection log in which an operator records, at a minimum, all of the following information for each inspection performed:

6.4.1 The total number of components inspected, and the total number and percentage of leaking components found by component type.
6.4.2 The location, type, and name or description of each leaking component and description of any unit where the leaking component is found.
6.4.3 The date of leak detection and the method of leak detection.

6.4.4 For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak.
6.4.5 The date of repair, replacement, or removal from operation of leaking components.
6.4.6 The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
6.4.7 The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier.
6.4.8 The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced.
6.4.9 The inspector's name, business mailing address, and business telephone number.
6.4.10 The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log.

Compliance with the inspection log requirements of Section 6.4 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	82
S-1128-118-16	45
S-1128-125-16	41
S-1128-128-17	37
S-1128-130-16	38
S-1128-144-10	37
S-1128-160-6	33

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	38
S-1128-162-6	35
S-1128-385-39	42
S-1128-390-7	34
S-1128-839-6	33
S-1128-921-5	33

Section 6.5, Employee Training Program

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

Compliance with the employee training requirements of Section 6.5 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	83
S-1128-118-16	46
S-1128-125-16	42
S-1128-128-17	38
S-1128-130-16	39
S-1128-144-10	38
S-1128-160-6	34

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	39
S-1128-162-6	36
S-1128-385-39	43
S-1128-390-7	35
S-1128-839-6	34
S-1128-921-5	34

Section 6.6, Operator Management Plan

Section 6.6 states that by June 30, 2008, an operator whose existing wells are subject to this rule or whose existing wells are exempt pursuant to Section 4.0 of this rule on or before December 14, 2006 shall prepare and submit an Operator Management Plan for approval by the APCO. An operator may use diagrams, charts, spreadsheets, or other methods approved by the APCO to describe the information required by Section 6.6.4 through Section 6.6.7 below. The Operator Management Plan shall include, at a minimum, all of the following information:

6.6.1 A description of all wells and all associated VOC collection and control systems subject to this rule, and all wells and all associated VOC collection and control systems that are exempt pursuant to Section 4.0 of this rule.

6.6.2 Identification and description of any known hazard that might affect the safety of an inspector.

6.6.3 Except for pipes, the number of components that are subject to this rule by component type.

6.6.4 Except for pipes, the number and types of major components, inaccessible components, unsafe-to-monitor components, critical components, and essential components that are subject to this rule and the reason(s) for such designation.

6.6.5 Except for pipes, the location of components subject to the rule (components may be grouped together functionally by process unit or facility description).

6.6.6 Except for pipes, components exempt pursuant to Section 4.6 (except for components buried below ground) may be described in the Operator Management Plan by grouping them functionally by process unit or facility description. The results of any laboratory testing or other pertinent information to demonstrate compliance with the applicable exemption criteria for components for which an exemption is being

claimed pursuant to Sections 4.6 shall be submitted with the Operator Management Plan.

6.6.7 A detailed schedule of an operator's inspections of components to be conducted as required by this rule and whether the operator inspections of components required by this rule will be performed by a qualified contractor or by an in-house team.

6.6.8 A description of the training standards for personnel that inspect and repair components.

6.6.9 A description of the leak detection training for conducting the test method specified in Section 6.3.3 for new operators, and for experienced operators, as necessary.

Section 6.7 states that by January 30 of each year, an operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to an existing Operator Management Plan.

Section 6.8 states that the APCO shall provide written notice to the operator of the approval or incompleteness of a new or revised Operator Management Plan within 60 days of receiving such Operator Management Plan. If the APCO fails to respond in writing within 60 days after the date of receiving the Operator Management Plan, it shall be deemed approved. No provision of the Operator Management Plan, approved or not, shall conflict with or take precedence over any provision of this rule.

Compliance with the operator management plan requirements of Section 6.6, 6.7 and 6.8 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-116-43	84 and 85
S-1128-118-16	47 and 48
S-1128-125-16	43 and 44
S-1128-128-17	39 and 40
S-1128-130-16	40 and 41
S-1128-144-10	39 and 40
S-1128-160-6	35 and 36

Permit Unit(s)	Permit Condition(s)
S-1128-161-9	40 and 41
S-1128-162-6	37 and 38
S-1128-385-39	44 and 45
S-1128-390-7	36 and 37
S-1128-839-6	35 and 36
S-1128-921-5	35 and 36

J. District Rule 4601 – Architectural Coatings

This rule limits the emissions of VOC's from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). This rule further specifies

labeling requirements, coatings thinning recommendations, and storage requirements.

Current District Rule 4601 (amended 12/17/09) 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.

The following changes were included in the latest rule amendment that resulted in adding new permit requirements and/or revising current permit requirements:

- The tables outlining the VOC content of different specialty coatings has been largely replaced with the Table of Standards in Section 5.0.
- New labeling, reporting, test methodology and other requirements have been incorporated into the rule in order to allow ARB to administer the Averaging Program as detailed in Section 8.0.

Conditions 23, 24 and 25 of the requirements for this revised facility wide permit S-1128-0-2 will assure compliance with the requirements of this rule.

K. District Rule 4623 - Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Several of the permits for the tanks at this facility are identical and therefore will be grouped together when demonstrating compliance with rule requirements. The tank groups (bundle) and designated permits are listed below.

Tanks Bundle A:
S-1128-409-7, -415-4, -416-4, -425-4 through -429-4, -431-4, -435-4, -437-4, -438-4, -455-4, -456-4, -526-4, -529-4, -530-4, -536-4, -540-4, -542-4, -546-4, -548-4, -588-4, -600-4, -606-4, -607-4, -610-4, -631-4, -633-4 through -640-4, -690-4 through -696-4, -698-4, -699-4, -700-4, -702-4, -705-8, -706-4, -707-8, -708-4, -709-4, and -713-4 through -717-4.

Tanks Bundle B:
S-1128-250-8, -253-10, -262-10, -263-10, -400-9, -401-9, -402-11, -404-8, -405-8, -406-8, -407-8, -411-8, -412-8, -935-10, -936-10, and -938-7.

Tanks Bundle C:
S-1128-222-11, -223-7, -224-7, -225-8, -226-7 through -229-7, -701-9, -703-8, and -923-6.

Tanks Bundle D:
S-1128-230-4, -231-4, -232-4, -278-6, -605-5, -608-5, and -609-5.

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:

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

All the following tank permits at this facility meet this exemption and therefore they will only be subject to the sections of the rule listed above. Compliance with this exemption is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
Bundle A	1
Bundle B	1
Bundle C	1
Bundle D	1
S-1128-183-11	1
S-1128-248-33	2
S-1128-297-4 and -298-4	1

Permit Unit(s)	Permit Condition(s)
S-1128-618-7	2
S-1128-621-6 and -622-7	2
S-1128-623-7	2
S-1128-625-7	2
S-1128-940-4	4
S-1128-974-3 through -977-3	6

5.1 VOC Control System Requirements

Section 5.1 states that except for small producers who are required to comply with the VOC control system requirements in Section 5.1.2, an operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

Compliance with this requirement is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-617-10	1

5.6 Specifications for Vapor Recovery Systems

Section 5.6.1 states that fixed roof tanks shall be fully enclosed and shall be maintained in a leak-free condition. An APCO-approved vapor recovery system shall consist of a closed 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 one of the following:

5.6.1.1 A condensation or vapor return system that connects to one of the following: a gas processing plant, a field gas pipeline, a pipeline distributing Public Utility Commission quality gas for sale, an injection well for disposal of vapors as approved by the California Department of Conservation, Division of Oil Gas, and Geothermal Resources, or

5.6.1.2 A VOC control device that reduces the inlet VOC emissions by at least 95 percent by weight as determined by the test method specified in Section 6.4.6.

Section 5.6.2 states that 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.

Section 5.6.3 states that all piping, valves, and fittings shall be constructed and maintained in a leak-free condition.

Compliance with this requirement is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-617-10	2 and 3

5.7 Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program

Only operators who elect to participate in the voluntary tank preventive inspection and maintenance, and tank interior cleaning program (program) shall be allowed to use the provisions specified in Tables 3 to 5 and Section 5.7.5. When using Tables 3 to 5 and Section 5.7.5 provisions, operators shall perform the procedures as expeditiously as practicable and minimize emissions to the maximum extent practicable.

Compliance with the requirements in Table 3 is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-617-10	4 though 9

6.2 TVP and API Gravity Testing of Stored Organic Liquid in Uncontrolled Fixed Roof Tanks

Section 6.2.1.1 states that an operator shall conduct an initial TVP testing of each uncontrolled fixed roof tank. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. The operator shall submit the records of TVP and/or API gravity testing to the APCO as specified in Section 6.3.6. The operator shall be in full compliance with the rule by the deadline specified in Section 7.1

Since all the tanks at this facility are existing tanks, no initial testing is necessary.

6.2.1.1.1 The selection of representative, uncontrolled fixed roof tanks is submitted in writing to the APCO, and written approval is granted by the APCO prior to conducting the test.

6.2.1.1.2 One uncontrolled fixed roof tank represents some or all of the tanks in a tank battery (defined in Section 3.31).

6.2.1.1.3 For crude oil production facilities, the representative uncontrolled fixed roof tank shall be the first line tank (or tanks) in a tank battery that is first receiving the produced fluids (mixture of oil, water, and gases) from the crude oil production wells.

6.2.1.1.4 The stored organic liquid in each of the represented tanks is the same and came from the same source.

6.2.1.1.5 The TVP and storage temperature of the stored organic liquid of the representative tank to be tested are the same or higher than those of the tanks it is to represent.

Section 6.2.1.2 states the TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. If the tank stores crude oil or petroleum distillates, the operator shall also conduct an API gravity testing.

Section 6.2.1.3 states that in lieu of complying with Sections 6.2.1.1 and 6.2.1.2, an operator shall submit a complete application for an Authority to Construct to install and operate on each uncontrolled fixed roof tank the appropriate VOC control system specified in Section 5.1. The operator shall be in full compliance with the rule by the deadline specified in Section 7.1.

Section 6.2.2 states that an operator shall conduct a TVP testing of each uncontrolled fixed roof 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 each tank. In lieu of testing each uncontrolled fixed roof tank, an operator may conduct a TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. The operator shall also comply with Section 6.2.1.2. The operator shall submit the records of TVP and/or API gravity testing to the APCO as specified in Section 6.3.6.

Compliance with the TVP and API Gravity Testing provisions pursuant to Section 6.2 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
Bundle A	2 and 5
Bundle B	2 and 5
Bundle C	2 and 5
Bundle D	2 and 5
S-1128-183-11	2 and 5
S-1128-248-33	n/a
S-1128-297-4 and -298-4	2 and 5

Permit Unit(s)	Permit Condition(s)
S-1128-618-7	3 and 6
S-1128-621-6 and -622-7	3 and 6
S-1128-623-7	3 and 6
S-1128-625-7	3 and 6
S-1128-940-4	5 and 8
S-1128-974-3 through -977-3	5 and 7

6.3 Recordkeeping

An operator shall retain accurate records required by this rule for a period of five years. Records shall be made available to the APCO upon request, except for certain records that need to be submitted as specified in the respective sections below.

Section 6.3.6 states that an operator shall submit the records of TVP and API gravity testing conducted in accordance with the requirements of Section 6.2 to the APCO within 45 days after the date of testing. The record shall include the tank identification number, PTO 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. An operator who uses the information in Appendix A to demonstrate the TVP and/or API gravity of the stored organic liquid shall submit information to the APCO within 45 days after the date that the type of organic liquid stored in the tank has been determined.

Compliance with the recordkeeping provisions pursuant to Section 6.3.6 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
Bundle A	6, 7, and 8
Bundle B	6, 7, and 27
Bundle C	6, 7, and 27
Bundle D	6, 7, and 29
S-1128-183-11	33, 34, and 36
S-1128-248-33	n/a
S-1128-297-4 and -298-4	3, 29, and 30

Permit Unit(s)	Permit Condition(s)
S-1128-618-7	7, 8, and 22
S-1128-621-6 and -622-7	7, 22, and 23
S-1128-623-7	7, 22, and 23
S-1128-625-7	7, 22, and 23
S-1128-940-4	9, 30 and 31
S-1128-974-3 through -977-3	18 and 19

6.4 Test Methods

The following test methods shall be used unless otherwise approved by the APCO and the United States Environmental Protection Agency (US EPA).

6.4.1 Analysis of halogenated exempt compounds shall be conducted using California Air Resources Board (ARB) Method 432.

6.4.2 The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287-92 (2000) 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".

6.4.3 Except for crude oil subject to Section 6.4.4, the TVP of any organic liquid shall be determined by measuring the Reid Vapor Pressure (RVP) using ASTM D 323-94 (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 procedures in Appendix

B. Appendix B is an excerpt from the oil and gas section of "ARB Technical Guidance Document to the Criteria and Guidelines Regulation for AB 2588", dated August 1989. As an alternative to using ASTM D 323-94, the TVP of crude oil with an API gravity range of greater than 26° up to 30° may be determined by using other equivalent test methods approved by APCO, ARB and US EPA.

6.4.4 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 US EPA, shall be used to determine the TVP of crude oil with an API gravity of 26° or less, or for any API gravity that is specified in this test method.

6.4.5 An operator may use the information in Appendix A to determine the TVP of the stored organic liquid in a tank provided the storage temperature listed in Appendix A is not exceeded at any time.

6.4.6 The control efficiency of any VOC destruction device, measured and calculated as carbon, shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported.

6.4.7 Analysis of halogenated exempt compounds shall be analyzed by ARB Method 422 "Exempt Halogenated VOCs in Gases September 12, 1990".

6.4.8 Measurements of a gas-leak concentration shall be determined by US EPA Method 21.

Compliance with the test methods provisions pursuant to Section 6.4 are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
Bundle A	3 and 4
Bundle B	3 and 4
Bundle C	3 and 4
Bundle D	3 and 4
S-1128-183-11	3 and 4
S-1128-248-33	3
S-1128-297-4 and -298-4	3 and 4

Permit Unit(s)	Permit Condition(s)
S-1128-617-10	11
S-1128-618-7	4 and 5
S-1128-621-6 and -622-7	4, 5, and 8
S-1128-623-7	4, 5, and 8
S-1128-625-7	4, 5, and 8
S-1128-940-4	6 and 7
S-1128-974-3 through -977-3	9 and 10

7.0 Compliance Schedule

Section 7.2 states that any tank that is exempted under Section 4.0 that becomes subject to the VOC control system requirements of this rule through the loss of exemption status, shall be in full compliance with this rule on the date the exemption status is lost.

District inspections of the facility assures compliance with the requirements above.

L. District Rule 4702 – Internal Combustion Engines

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 nitrogen oxides (NO_X), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.

This rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower.

All of the District Rule 4702 requirements on the existing permits have been removed and updated in accordance with the latest rule amendments and have been included as discussed below.

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.

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 engines involved with this project meet the definition of "Emergency Standby Engines" and will only have to meet the requirements of Sections 5.9 and 6.2.3 of this Rule. Compliance with the emergency standby engine definition and exemption are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-305-3	4, 5, and 8
S-1128-306-4	4, 5, and 8
S-1128-307-3	4, 5, and 8
S-1128-949-2	6, 7, and 12
S-1128-951-3	6, 7, and 12

Section 5.9 of this Rule requires that the owner of an emergency standby engine shall comply with the requirements specified in Section 5.9.2 through Section 5.9.5 below:

1) Properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.

2) Monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

3) Install and operate a nonresettable elapsed operating time meter.

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

- The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Compliance with this section is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-305-3	3, 6, 7, and 9
S-1128-306-4	3, 6, 7, and 9
S-1128-307-3	3, 6, 7, and 9
S-1128-949-2	3, 8, 11, and 13
S-1128-951-3	3, 8, 11, and 13

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 this section is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-305-3	11
S-1128-306-4	11
S-1128-307-3	11
S-1128-949-2	15
S-1128-951-3	15

The District has determined that the facility has been operating in compliance with the requirements of this section. Therefore, these engines are operating in compliance with the requirements of this section and no further discussion is required.

M. District Rule 4703 – Stationary Gas Turbines

Section 2.0 of this rule states that the provisions of this rule apply to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour, except as provided in Section 4.0.

Each gas turbine is rated at heat input rate greater than 3 MMBtu/hour. Therefore, each turbine is subject to the requirements of this rule. This rule only applies to units S-1128-366-15, -367-14, -368-14, -369-14, -370-17, -371-17, -372-16, -373-16, -376-10, and -377-10.

Section 5.1 – NO_X Emission Requirements

Section 5.1.3, Table 5-3, Tier 3 NOx Compliance Limits, requires the owner or operator to achieve less than or equal to 9 ppmvd NOx @ 15% O_2 to meet Tier-3 compliance schedule listed in Section 7.3.

Tier 3 NO_X Compliance Limits		
Turbine Classification Rating	NO_X Compliance Limit, ppmvd at 15% O_2	
	Gas Fuel	Liquid Fuel
a) Less than 3 MW	9	25

All the turbines in this project are 2.7 MW turbines without DLN systems; therefore they are subject to limit a) Less than 3 MW.

Section 5.2 – CO Emission Requirements

Section 5.2, Table 5-4, CO Compliance Limits, requires the owner or operator to operate and maintain the gas turbine such that CO emissions must be less than 200 ppmvd @ 15% O_2. Rule 4703 does not include a specific averaging period requirement for demonstrating compliance with the CO emission limit. The District practice is to require CO emissions compliance demonstration on 3-hour rolling average period.

Compliance with these two sections is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	7
S-1128-370-17, -371-17, -372-16, and -373-16	7
S-1128-376-10 and -377-10	7

Section 5.3 – Transitional Operation Periods

NOx and CO emission limits (listed above) shall not apply during a transitional operation period, which includes bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown (each term is defined in Section 3.0 of Rule 4703), provided an operator shall meet the following conditions:

- The duration of each startup or each shutdown shall not exceed two hours.
- For each bypass transition period, the requirements specified in Section 3.2 shall be met.
- For each primary re-ignition period, the requirements specified in Section 3.20 shall be met[1].
- Each reduced load period shall not exceed one hour.

The facility has demonstrated compliance with the two hour startup and shutdown duration requirements. Compliance with this section is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	36 through 42
S-1128-370-17, -371-17, -372-16, and -373-16	35 through 41
S-1128-376-10 and -377-10	36 through 42

[1] This requirement is applicable to a gas turbine with dry low-NOx combustors. Each turbine under this project is equipped with water injection system. Thus, this requirement is not applicable to these units.

Section 6.2 - Monitoring and Recordkeeping

Section 6.2.1 requires the owner to operate and maintain continuous emissions monitoring equipment for NO_X and oxygen, or install and maintain APCO-approved alternate monitoring. The facility operates a Continuous Emissions Monitoring System (CEMS) on each unit that monitors NO_X, CO, and O_2 in the exhaust gas.

Section 6.2.2 specifies monitoring requirements for turbines without exhaust-gas NO_X control devices. Each gas turbine will be equipped with an SCR system that is designed to control NO_X emissions. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.2.3 applies to units 10 MW and greater. Since all the units at this facility are less than 10 MW, the units are not subject to the requirements of this section.

Section 6.2.4 requires the facility to maintain all records for a period of five years from the date of data entry and shall make such records available to the APCO upon request. The facility will maintain records according to the requirements of this section. Therefore, the recordkeeping requirements of this section are met.

Section 6.2.5 requires that the owner or operator submit to the APCO, before issuance of the Permit to Operate, information correlating the control system operating to the associated measure NO_X output. Since these units are currently permitted, this information has previously been collected and no further information is needed.

Section 6.2.6 requires the facility to maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, and the type and quantity of fuel used. The facility will be required to maintain a log in accordance with the requirements of this section.

Section 6.2.7 establishes recordkeeping requirements for units that are exempt pursuant to the requirements of Section 4.2. Each of the proposed turbines is subject to the requirements of this rule. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.2.8 requires owners or operators performing startups or shutdowns to keep records of the duration of each startup and shutdown. As discussed in the Section 6.2.6 discussion above for this rule, the facility will maintain an operating log that will satisfy the requirements of this section.

Compliance with the monitoring and recordkeeping requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	22, 26, 35, 43, 44, and 45
S-1128-370-17, -371-17, -372-16, and -373-16	22, 26, 34, 42, 43, and 44
S-1128-376-10 and -377-10	22, 26, 35, 43, 44, and 45

Sections 6.3 and 6.4 - Compliance Testing

Section 6.3.1 states that the owner or operator of any stationary gas turbine system subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NO_X and CO concentrations. Each gas turbine is required to be tested annually to ensure compliance with NO_X and CO concentrations.

Section 6.3.2 specifies source testing requirements for units operating less than 877 hours per year. The turbines at this facility will be allowed to operate in excess of 877 hours per year. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.3.3 states that units with intermittently operated auxiliary burners shall demonstrate compliance with the auxiliary burner in both "on" and "off" configurations.

Section 6.4 states that the facility must demonstrate compliance annually with the NO_X and CO emission limits using the following test methods, unless otherwise approved by the APCO and EPA:

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.

- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.

- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.

- HHV and LHV of gaseous fuels shall be determined by using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81.

Conditions will be added to will ensure continued compliance with the test method requirements of this section.

Compliance with the compliance testing requirements of this rule is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	6, 17, and 19
S-1128-370-17, -371-17, -372-16, and -373-16	
S-1128-376-10 and -377-10	6, 17, and 19

The District has determined that the facility has been operating in compliance with the requirements of this section. Therefore, these engines are operating in compliance with the requirements of this section and no further discussion is required.

N. District Rule 8011 – General Requirements

The purpose of Regulation VIII (Fugitive PM_{10} Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM_{10}) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM_{10} Nonattainment Areas. These rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM_{10} and particles larger than PM_{10}. Controlling fugitive dust missions when visible emissions are detected will not prevent all PM_{10} emissions, but will substantially reduce PM_{10} emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM_{10} Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

Conditions 29 through 34 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

O. District Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Condition 29 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

P. District Rule 8031 – Bulk Materials

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit VDE to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Condition 30 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

Q. District Rule 8041 – Carryout and Trackout

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout.

This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

Condition 31 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

R. District Rule 8051 – Open Areas

The purpose of this rule is to limit fugitive dust emissions from open areas.

This rule applies to any open area having 3.0 acres or more of disturbed surface area, that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner/operator shall implement one or a combination of control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

Condition 32 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

S. District Rule 8061 – Paved and Unpaved Roads

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

Condition 33 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

T. District Rule 8071 – Unpaved Vehicle/Equipment Traffic Area

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria.

This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

Condition 34 of the facility-wide requirements S-1128-0-2 will ensure compliance with these requirements.

U. 40 CFR Part 60, Subpart A – General Provisions

This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section. Section 60.18 of this Subpart was amended December 22, 2008. The Section was amended to revise the section heading, revise paragraph (a), and by adding paragraphs (g), (h), and (i).

The two flare units, S-1128-116-43 and -934-2 are subject to this Section. The revision to section and the revision to paragraph (a) will not affect the units in this project. In addition, flares are not subject to the requirements in paragraphs (g), (h), and (i). Therefore, the units in this project were not affected by the revisions to this Subpart.

V. 40 CFR Part 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Industrial Steam Generators

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction). Subpart Dc has standards for SO_X and PM_{10}.

§60.332 Standard for Sulfur Dioxide:

Since coal is not combusted by the steam generators in this project, the requirements of this section are not applicable.

§ 60.43c Standards for Particulate Matter

The steam generators are not fired on coal, combusts mixtures of coal with other fuels, combusts wood, combusts mixtured of wood with other fuels, or oil; therefore they will not be subject to the requirements of this section.

§60.44c Compliance and Performance Tests Methods and Procedures for Sulfur Dioxide.

Since the steam generators in this project are not subject to the sulfur dioxide requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.45c Compliance and Performance Test Methods and Procedures for Particulate Matter

Since the steam generators in this project are not subject to the particulae matter requirements of this subpart, no testing to show compliance is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.46c Emission Monitoring for Sulfur Dioxide

Since the steam generators in this project are not subject to the sulfur dioxide requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.47c Emission Monitoring for Particulate Matter

Since the steam generators in this project are not subject to the particulate matter requirements of this subpart, no monitoring is required. Therefore, the requirements of this section are not applicable to the steam generators in this project.

§60.48c Reporting and Recordingkeeping Requirements

Section 60.48c (a) states that the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

The design heat input capacity and type of fuel combusted at the facility will be listed on the unit's equipment description. No conditions are required to show compliance with this requirement.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel mixture of fuels under §60.42c or §40.43c.

This requirement is not applicable since the units are not subject to §60.42c or §40.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

The facility has not proposed an annual capacity factor; therefore one will not be required.

(4) Notification if an emerging technology will be used for controlling SO_2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator

This requirement is not applicable since the units will not be equipped with an emerging technology used to control SO_2 emissions.

Section 60.48 c (g) states that the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

Section 60.48 c (i) states that all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record. District Rule 4306 requires that records be kept for five years.

Compliance with the requirements of this subpart are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-4-24	32 and 33
S-1128-5-25	33 and 34
S-1128-7-5	30 and 31
S-1128-8-5	30 and 31
S-1128-16-26	33 and 34
S-1128-18-29	42 and 43
S-1128-19-25	31 and 32
S-1128-21-31	32 and 33
S-1128-25-36	34 and 35
S-1128-27-24	36 and 37
S-1128-28-22	33 and 34
S-1128-29-38	24 and 25
S-1128-30-37	25 and 26
S-1128-31-36	23 and 24
S-1128-32-38	24 and 25
S-1128-33-41	24 and 25
S-1128-34-41	24 and 25
S-1128-35-33	29 and 30
S-1128-36-23	37 and 38
S-1128-38-26	36 and 37
S-1128-48-25	38 and 39

Permit Unit(s)	Permit Condition(s)
S-1128-57-16	31 and 32
S-1128-58-15	32 and 33
S-1128-66-22	32 and 33
S-1128-68-13	32 and 33
S-1128-75-18	34 and 35
S-1128-76-14	25 and 26
S-1128-77-17	34 and 35
S-1128-79-13	34 and 35
S-1128-80-16	34 and 35
S-1128-111-16	34 and 35
S-1128-112-15	36 and 37
S-1128-113-15	34 and 35
S-1128-154-24	36 and 37
S-1128-159-17	34 and 35
S-1128-302-4	33 and 34
S-1128-303-5	33 and 34
S-1128-360-9	33 and 34
S-1128-361-8	33 and 34
S-1128-941-3	33 and 34
S-1128-952-2	31 and 32

W. 40 CFR Part 60, Subpart GG – Standards of Performance for Stationary Gas Turbines

All of the 40 CFR Part 60, Subpart GG requirements on the existing permits have been removed and updated in accordance with the latest rule amendments and have been included as discussed below. All the turbine permits will have the same permit conditions.

Based on the conditions in Permits to Operate, each gas turbine engine is subject to the requirements of this subpart. These requirements and their compliance determination are briefly discussed in the following section.

§60.332 Standard for NOx:

§60.332(c) requires that a stationary gas turbine with a heat input rate greater than 10 MMBtu/hr but less than or equal to 100 MMBtu/hr shall comply with the NOx emission limit calculated using the following equation:

$$STD = 0.0150\frac{(14.4)}{Y} + F \text{; where}$$

STD = allowable ISO corrected NOx emission concentration in % by volume @ 15% O_2 on dry basis

Y = Manufacturer's rated heat rate at manufacturer's rated load (kJ/w-hr) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The Y shall not exceed 14.4 kJ/w-hr.

F = NO_x emission allowance for fuel-bound nitrogen.

For each gas turbine unit,

Heat input rate = 40.9×10^6 Btu/hr
Power Rating = 2.7 MW

$$Y = \left(40.9\times10^6\,\frac{Btu}{hr}\right)\times\left(\frac{1\text{kJ}}{0.9478\text{ Btu}}\right)\times\left(\frac{1}{2.7\times10^6 w}\right) = 16.0\,\frac{\text{kJ}}{\text{w - hr}}$$

Since Y exceeds 14.4 kJ/w-hr, Y is set equal to 14.4 kJ/w-hr.

F= 0; for conservative calculations

$$STD = 0.0150\frac{(14.4)}{14.4} + 0 = 0.015\text{ \% by volume @ 15\% } O_2 \text{ (150 ppmv @ 15\% } O_2\text{)}$$

The units at this facility are required to demonstrate compliance with 9 ppmvd @ 15% O_2 on 3-hour rolling average basis for each gas turbine engine. Therefore, each unit is expected to operate in compliance with the NOx standards.

§60.333 Standard for SOx:

§60.333(a) requires that emissions of sulfur dioxide shall not exceed 0.015 percent by volume dry @ 15% O_2 (150 ppmvd @ 15% O_2).

The 150 ppmvd @ 15% O_2 limit specified in §60.333(a) is equivalent to 0.764 lb-SO_2/MMBtu. This number is determined as follows:

$$\frac{\left(150\times10^{-6}\right)\times\left(8{,}578\,\frac{\text{ft}^3}{\text{MMBtu}}\right)\times\left(64\,\frac{\text{lb}-\text{SO}_2}{\text{lb}-\text{mol}}\right)\times\left(\frac{20.95}{20.95-15}\right)}{\left(379.5\,\frac{\text{ft}^3}{\text{lb}-\text{mol}}\right)} = 0.764\,\frac{\text{lb}-\text{SO}_2}{\text{MMBtu}}$$

The units at this facility are permitted to have an emission factor of 0.002 lb-SOx/MMBtu. This is less than that of the maximum allowable emission standard of 0.764 lb-SOx/MMBtu. Thus, compliance is expected with §60.333(a).

Compliance with the NO_X and SO_X Standards sections are demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	2 and 7
S-1128-370-17, -371-17, -372-16, and -373-16	7
S-1128-376-10 and -377-10	2 and 7

§60.334 Monitoring of Operations

§60.334(b) states that the owner or operator of a stationary gas turbine constructed between October 3, 1977 and July 8, 2004 and using water or steam to control NOx emissions may, as an alternative to operating the continuous emissions monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine, can install, calibrate, certify, maintain, operate, and quality-assure a continuous monitoring system (CEMS) consisting of NOx and O_2 monitors.

These turbines were constructed between October 3, 1977 and July 8, 2004. Chevron has proposed to use CEMS to measure NOx, CO and O_2 concentrations.

§60.334(h)(3)(i) and (ii) requires the owner or operator to keep sulfur content records using valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum sulfur content of the fuel is 20 grains/100 scf or less or perform a *representative fuel sampling* to show the sulfur content of gaseous fuel does not exceed 20 grains/100 scf. Permit conditions will assure the facility keeps these records.

§60.334(j)(1)(iii)(A) defines excess NOx emissions shall be any unit-operating hour in which the 4-hour rolling average NOx concentration exceeds the NOx emission limit calculated in §60.332.

Chevron has proposed to demonstrate compliance with NOx emissions of 5.0 ppmvd @ 15% O_2 on 3-hour rolling average basis, which is considered to be more stringent than the NSPS limit (given above under §60.332 Standard for NOx for each turbine) over 4-hour rolling average period. Therefore, it is not necessary to define excess NOx emissions separately.

§60.334(j)(1)(iii)(B) defines a period of monitor downtime shall be any operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent (or both). Permit conditions will assure the facility keeps these records.

§60.334(j)(2)(i) states for samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling for the unit's storage tank, an excess sulfur dioxide emissions occurs each unit operating hour included in the period beginning on the date and hour of any sample for which sulfur content of the fuel fired in the gas turbine exceeds 0.8% (by weight) and ending on the date and hour that a subsequent sample is taken that demonstrate compliance with the sulfur limit.

Each permit unit has been permitted with a SOx emission rate of 0.002 lb/MMBtu, which is less than 0.689 lb/MMBtu (0.8 lb-S/100 lb-fuel x 64 lb-SO_2/32 lb-S x 0.0439 lb-fuel/ft^3 x ft3/1,020 Btu x 10^6 Btu/MMBtu). Therefore, it is not necessary to define a less stringent limit.

§60.334(j)(2)(ii) defines excess sulfur dioxide emissions when each delivery of fuel oil has been selected. Each turbine is fired exclusively on natural gas fuel. Thus, requirements of this section are not applicable.

§60.334(j)(2)(iii) defines monitor downtime for sulfur dioxide emissions occur when a required sample is not taken by its due date. Monitor downtime also begins if invalid results are obtained for a fuel sample. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. Permit conditions will assure the facility keeps these records.

§60.334(j)(5) requires the owner or operator to postmarked the reports required under §60.7(c) by the 30th day following the end of each 6-month period. The permittee is required to submit quarterly reports. Thus, compliance is expected with this section.

Compliance with the monitoring of operations section is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	5, 22, 23, 24, 26, 28, 32, and 33
S-1128-370-17, -371-17, -372-16, and -373-16	4, 22, 23, 24, 26, 28, 32, and 33
S-1128-376-10 and -377-10	5, 22, 23, 24, 26, 28, 32, and 33

<u>§60.335 Test Methods and Procedure</u>

§60.335(a) states that the owner or operator shall conduct the performance tests required in §60.8 using EPA Method 20, ASTM D6522-00 or EPA Method 7E and either EPA Method 3 or 3A to determine NOx and diluent concentration. Sampling traverse points are to be selected following Method 20 or Method 1.

§60.335(b)(1) states that for each run of the performance test, the mean nitrogen oxide emission concentration @ 15% O_2 shall be corrected to ISO standard conditions using the equation listed in this section to demonstrate compliance with NSPS NOx standard.

§60.335(b)(2) states that the 3-run performance test must be performed within +/-5% at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice.

§60.335(b)(3) states that for a combined cycle turbine system with duct burner, the owner may elect to measure turbine NOx emissions after the duct burner rather than directly after turbine. Rule 4703 requires the facility to test the turbine system with duct burner "on" and "off" configurations. Therefore, no further discussion is required.

§60.335(b)(4) states that if water or steam injection is used to control NOx with no additional post-combustion NOx control and the owner or operator chooses to monitor the steam or water to fuel ratio then that monitoring system must be operated with each performance test run to determine the fuel consumption and the steam or water to fuel ratio to demonstrate on-going compliance with the NOx standard.

§60.335(b)(5) states that if the owner elects to claim an emission allowance for fuel bound nitrogen, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed following the applicable procedure described in §60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water or steam to fuel ratio will be valid.

Per http://www.naturalgas.org/overview/background.asp, nitrogen content in a natural gas varies between 0-5%. There would not be any significant variation in the NOx emission limit if the permittee was given an allowance for fuel bound nitrogen. Furthermore, the proposed NOx emission limit of 35 ppmvd NOx @ 15% O2 (required by Rule 4703) accounts for the fuel bound nitrogen. Given that this limit is more stringent than that of the NSPS NOx emission limit, allowance for fuel bound nitrogen is not considered for the fuel used in units in this project.

§60.335(b)(10) if the owner or operator is required to determine the sulfur content of the fuel combusted in the turbine then a minimum of three fuel samples shall be collected during the performance test.

Compliance with the test methods and procedures section is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-366-15, -367-14, -368-14, and -369-14	6, 17,19, and 34
S-1128-370-17, -371-17, -372-16, and -373-16	3, 5, 17, and 19
S-1128-376-10 and -377-10	6, 17,19, and 34

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

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

§ 63.6585 Applicability

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. As such, the emergency engines at this facility are subject to this subpart.

§ 63.6590 What parts of my plant does this subpart cover?

§6590(a) states, "An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand."

§6590(a)(1) defines the criteria for an existing stationary RICE as follows:

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

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

This facility is an area source of HAP emissions. The engines at this facility have not commenced construction or reconstruction on or after June 12, 2006.

Therefore, the engines at this facility meet the definition of an existing stationary RICE as defined in §6590(a)(1)(iii).

§6590(b)(3) states that the following engines do not have to meet the requirements of this subpart and of subpart A of this part:

- Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- Existing residential emergency stationary RICE located at an area source of HAP emissions;
- Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
- Existing institutional emergency stationary RICE located at an area source of HAP emissions.

The engines at this facility do not qualify for any of the exemptions listed above.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;
(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you. Note, there are no Table 1b or Table 2b operating limitations for emergency engines.

Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions.

As stated in §§63.6603 and 63.6640, the following table applies to existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirements, except during periods of startup . . .	During periods of startup you must . . .
4. Emergency stationary CI RICE and black start stationary CI RICE.*	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;	N/A
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	N/A
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	N/A

*If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(f) *Requirements for emergency stationary RICE.*

(1) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance

checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
9. Existing emergency and black start stationary RICE located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§ 63.6645 What notifications must I submit and when?

There are no notifications necessary for existing emergency engines.

§ 63.6650 What reports must I submit and when?

There are no report submittals necessary for existing emergency engines.

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records as follows:

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE:

(2) An existing stationary emergency RICE.
(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraph (f)(2) below, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Compliance with the requirements of this subpart is demonstrated with the permit conditions listed in the table below.

Permit Unit(s)	Permit Condition(s)
S-1128-305-3	3, 8, 11, and 13 through 19
S-1128-306-4	3, 8, 11, and 13 through 19
S-1128-307-3	3, 8, 11, and 13 through 19
S-1128-949-2	3, 12, and 15 through 22
S-1128-951-3	3, 12, and 15 through 22
S-1128-978-1	4, 7, and 15 through 22

Y. 40 CFR Part 64 – CAM

§64.2 – Applicability

This section 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; 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.

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO_X	20,000
CO	200,000
PM_{10}	140,000
SO_X	140,000

Tanks:

Tanks Bundle A:
S-1128-409-7, -415-4, -416-4, -425-4 through -429-4, -431-4, -435-4, -437-4, -438-4, -455-4, -456-4, -526-4, -529-4, -530-4, -536-4, -540-4, -542-4, -546-4, -548-4, -588-4, -600-4, -606-4, -607-4, -610-4, -631-4, -633-4 through -640-4, -690-4 through -696-4, -698-4, -699-4, -700-4, -702-4, -705-8, -706-4, -707-8, -708-4, -709-4, and -713-4 through -717-4.

1) These units do not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, these units are not subject to CAM.

Tanks Bundle B:
S-1128-250-8, -253-10, -262-10, -263-10, -400-9, -401-9, -402-11, -404-8, -405-8, -406-8, -407-8, -411-8, -412-8, -935-10, -936-10, and -938-7.

1) These units do not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, these units are not subject to CAM.

Tanks Bundle C:
S-1128-222-11, -223-7, -224-7, -225-8, -226-7 through -229-7, -701-9, -703-8, and -923-6.

1) These units do not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, these units are not subject to CAM.

Tanks Bundle D:
S-1128-230-4, -231-4, -232-4, -278-6, -605-5, -608-5, and -609-5.

1) These units do not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, these units are not subject to CAM.

S-1128-183-11: 3,300 BBL FIXED ROOF PETROLEUM WASH TANK #T-1 WITH VAPOR CONTROL SYSTEM CONSISTING OF KNOCKOUT VESSEL(S), HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S) AND VAPOR COMPRESSOR(S)

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-248-33: 6,600 BBL FIXED ROOF CRUDE OIL TANK T-24 W VAPOR CONTROL SYS SHARED W/23 PERMIT UNITS; INCLUDING HEAT EXCHANGER(S), G/L SEPARATOR(S), GAS COMPRESSORS, & GAS PIPING TO SULFEROX PLT (S-1128-116), SCRUBBED STEAM GENERATORS OR DOGGR APPROVED DISPOSAL WELLS

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-297-4: WEMCO M-1 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-298-4: WEMCO M-2 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-617-10: 3000 BBL FIXED ROOF PRODUCED WATER TANK #T-6 WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-618,-620,-621,-622,-623, AND -625, BAKER PETROLITE SULFASCRUB MODEL HSW 700 H2S SCAVENGING SYSTEM, AND INCLUDING VAPOR PIPING TO DISTRICT-APPROVED DISPOSAL OPTIONS AS IDENTIFIED IN THIS PERMIT

1) This unit only contains a VOC emission limit.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-618-7: 2,000 BBL FIXED ROOF LACT TANK #T-4 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

1) This unit only contains a VOC emission limit.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-621-6: 775 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-7 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

1) This unit only contains a VOC emission limit.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-622-7: 3,300 BBL FIXED ROOF PETROLEUM WASH TANK #T-2 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

1) This unit only contains a VOC emission limit.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-623-7: 3,020 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-1 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

1) This unit only contains a VOC emission limit.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-625-7: 2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-3 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

1) This unit only contains a VOC emission limit.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-940-4: 16,000 GALLON WEMCO M-3 TANK WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-974-3: UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-975-3: UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-976-3: UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

S-1128-977-3: UP TO 500 BBL FIXED ROOF CRUDE OIL TANK WITH PV VALVE AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (CAN BE OWNED BY PERMITTEE OR RENTED ON AN AS-NEEDED BASIS)

1) This unit does not contain any emission limits for NO_X, SO_X, PM_{10}, CO, and VOC. Therefore, this unit is not subject to CAM.

IC Engines:

S-1128-305-3: 375 HP CATERPILLAR MODEL 3406DT DIESEL FIRED I.C. ENGINE POWERING EMERGENCY GENERATOR

1) This unit only contains a SO_X emission limit in the form of a diesel fuel sulfur limitation of 0.0015%, by weight.
2) This engine is not equipped with any external control devices for SO_X emissions. Therefore, the CAM requirements of 40 CFR 64 are not applicable and no further discussion is required.

S-1128-306-4: 600 HP CUMMINS MODEL KTA1965T DIESEL FIRED I.C. ENGINE POWERING EMERGENCY GENERATOR

1) This unit only contains a SO_X emission limit in the form of a diesel fuel sulfur limitation of 0.0015%, by weight.
2) This engine is not equipped with any external control devices for SO_X emissions. Therefore, the CAM requirements of 40 CFR 64 are not applicable and no further discussion is required.

S-1128-307-3: 375 HP CATERPILLAR MODEL 3406DT DIESEL FIRED I.C. ENGINE POWERING EMERGENCY GENERATOR

1) This unit only contains a SO_X emission limit in the form of a diesel fuel sulfur limitation of 0.0015%, by weight.
2) This engine is not equipped with any external control devices for SO_X emissions. Therefore, the CAM requirements of 40 CFR 64 are not applicable and no further discussion is required.

S-1128-949-2: 470 HP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A 300 KW ELECTRICAL GENERATOR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1128-951-3: 470 BHP CUMMINS MODEL QSM11-G2 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1128-978-1: 250 HORSEPOWER CUMMINS MODEL QSB7-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (31X CONTROL ROOM, CYMRIC OILFIELD)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

Turbines:

Cogeneration Units:
S-1128-366-14, -367-13, -368-13, -369-13, -370-16, -371-16, -372-15, -373-15, -376-9, and -377-9.

1) These units contain emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) These units are served by a selective catalytic reduction (SCR) system to control NO_x emissions. However, each of the units are also equipped with a Continuous Emissions Monitoring (CEM) system and therefore are exempt from CAM requirements.

Wells:

S-1128-116-43: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SULFEROX H2S REMOVAL PLANT, SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383)

1) This unit contains fugitive emission limits for NO_X, SO_x, PM_{10}, CO and VOC.
2) The vapor control system on this unit is a collection system and not a control device. Also, the unit is not equipped with a control device for any of the criteria pollutants. Therefore, this unit is not subject to CAM.

S-1128-118-16: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 628 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

1) This unit contains fugitive emission limits for SO_X and VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-125-16: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 113 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND VAPOR PIPING TO STEAM GENERATORS S-1128-15, S-1128-18, AND VAPOR PIPING TIED INTO VAPOR RECOVERY LINE FROM SYSTEM LISTED UNDER PERMIT S-1128-617

1) This unit contains a fugitive emission limit for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-128-17: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-31X SERVING 60 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR S), AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S)

1) This unit contains a fugitive emission limit for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-130-16: TEOR OPERATION WVVC SYSTEM CC-36W #2 SERVING 146 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED SG'S, DOGGR APPROVED DISPOSAL WELL(S), OR 5 AUTOMATIC WELL TEST VESSELS - CYMRIC

1) This unit contains a fugitive emission limit for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-144-10: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-5Z/6Z SERVING 33 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S) - CYMRIC

1) This unit contains a fugitive emission limit for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-160-6: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 16 STEAM DRIVE WELLS AND 18 CYCLIC WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

1) This unit does not contain emission limits for any of the criteria pollutants; therefore this unit is not subject to CAM.

S-1128-161-9: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 65 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

1) This unit contains a fugitive emission limit for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-162-6: THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 40 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

1) This unit does not contain emission limits for any of the criteria pollutants; therefore this unit is not subject to CAM.

S-1128-385-39: THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-1Y SERVING 770 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, GAS FLOW AND TEMPERATURE INDICATORS, AUTOMATIC WELL TEST STATIONS, AND GAS PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED STEAM GENERATORS, OR DOGGR APPROVED DISPOSAL WELL(S)

1) This unit contains a fugitive emission limit for VOC.
2) The vapor control system on this unit is a collection system and not a control device. Therefore, this unit is not subject to CAM.

S-1128-390-7: 797 CYCLIC WELLS WITH CLOSED CASING VENTS

1) This unit does not contain emission limits for any of the criteria pollutants; therefore this unit is not subject to CAM.

S-1128-839-6: 20 UNCONTROLLED CYCLIC WELLS

1) This unit does not contain emission limits for any of the criteria pollutants; therefore this unit is not subject to CAM.

S-1128-921-5: 158 STEAM ENHANCED WELLS WITH CLOSED CASING VENTS

1) This unit does not contain emission limits for any of the criteria pollutants; therefore this unit is not subject to CAM.

Steam Generators:

S-1128-4-24: 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43009-74 WITH FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-5-25: 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #51 DIS# 43005-74 WITH NORTH AMERICAN GLE LOW-NOX BURNER, FGR, BLOWER MOTOR AND VARIABLE SPEED DRIVE (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-7-5: 8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #1

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1128-8-5: 8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #2

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1128-16-26: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-2 DIS # 43003-81 WITH FGR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-18-29: 62.5 MMBTU/HR NATURAL/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-4-2F WITH SO2 SCRUBBER AND NORTH AMERICAN GLE MAGNA-FLAME ULTRA-LOW NOX BURNER - TAFT (GROUP II)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-19-25: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR (#50-5 DIS #43006-81) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FLUE GAS RECIRCULATION (FGR)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-21-31: 69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 90, DIS# 43010-80) WITH NORTH AMERICAN GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.0128 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (69.0 MMBtu/hr) x (8,760 hr/year)
= 12,089 lb-NO_X/year

Since 12,089 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-25-36: 69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 62, DIS# 41764-06) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.0128 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (69.0 MMBtu/hr) x (8,760 hr/year)
= 12,089 lb-NO_X/year

Since 12,089 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-27-24: 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #53 DIS# 43010-78 WITH FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-28-22: 69.0 MMBTU/HR NATURAL/TEOR GAS-FIRED STEAM GENERATOR #52 DIS# 43014-78 WITH NORTH AMERICAN MAGNA-FLAME GLE LOW-NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.0128 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (69.0 MMBtu/hr) x (8,760 hr/year)
= 12,089 lb-NO_X/year

Since 12,089 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-29-38: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 55, DIS# 41752-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, SHARED SO2 SCRUBBER WITH S-1128-30, -31, -32, -33, AND -34 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-30-37: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 56, DIS # 43018-80) WITH LOW-PRESSURE FUEL INDUCED RECIRCULATION (LPFIR), EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 - CYMRIC, AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-31-36: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 57, DIS# 41763-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-32-38: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 58, DIS# 41751-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= **3,547,800 lb-SO_X/year**

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-33-41: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 59, DIS# 41758-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-34-41: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 59, DIS# 41758-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.

3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-35-33: 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 89) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.

3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-36-23: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-38-26: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (#94)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-48-25: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-4-26C) EQUIPPED WITH A NORTH AMERICAN MAGNAFLAME GLE ULTRA-LOW NOX BURNER WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions and a SO2 scrubber to control SO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions. The SO2 scrubber will be assumed to have 95% control efficiency.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

SO_X:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.324 lb-SO_X/MMBtu) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 177,390 lb-SO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (177,390 lb-SO_X/year) ÷ (1 – 0.95)
= 3,547,800 lb-SO_X/year

Since 3,547,800 lb-SO_X/yr > 140,000 lb-SO_X/yr (Major Source threshold for SO_X), this unit is subject to CAM for SO_X emissions. CAM requirements are satisfied by the permit conditions listed in the table on page 124.

S-1128-57-16: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 LOW NOX BURNER AND FGR (#50-6 DIS #43012-81)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-58-15: 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-7 DIS# 43013-81 WITH FGR AND NORTH AMERICAN GLE ULTRA-LOW NOX BURNER

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.

3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-66-22: 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 82, DIS# 26753-80) WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE FOR BLOWER MOTOR, AND O2 ANALYZER FOR FGR CONTROL

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-68-13: 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 76, DIS# 43016-82) NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 CONTROLLER - CYMRIC

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-75-18 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 91, DIS# 43001-85) WITH NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-76-14 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 93, DIS# 37425-2) WITH A NORTH AMERICAN GLE MAGNA-FLAME LOW-NOX BURNER, FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 ANALYZER (PERMITTED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-77-17 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 92, DIS# 43003-85) WITH A NORTH AMERICAN MODEL MAGNA FLAME GLE-4231 LOW NOX BURNER AND A WITH FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-79-13 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #95 (DIS#43007-85) EQUIPPED WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-80-16 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 96) WITH FGR - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-111-16 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 72) WITH A NORTH AMERICAN MODEL #4231 G-LE MAGNA FLAME LOW-NOX BURNER WITH VARIABLE FREQUENCY DRIVE FOR THE BLOWER MOTOR, FGR, AN O2 ANALYZER FOR FGR CONTROL, AND APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-112-15 69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FLUE GAS RECIRCULATION (CUSA ID# 73) APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.

3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.0128 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (69.0 MMBtu/hr) x (8,760 hr/year)
= 12,089 lb-NO_X/year

Since 12,089 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-113-15 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 97) WITH A NORTH AMERICAN MAGNA-FLAME GLE LOW-NOX BURNER AND FGR - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-154-24 62.5 MMBTU/HR NATURAL/PRODUCED GAS FIRED STEAM GENERATOR (CUSA ID #14) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-159-17 62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (CUSA ID# 18-A)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-302-4 8.4 MMBTU/HR NATURAL GAS-FIRED BOILER #3 WITH A CLEAVER BROOKS MODEL ICH84GX30S LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x 30,000 (MMBtu/yr)
= (0.036 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (30,000 MMBtu/yr)
= 1,688 lb-NO_X/year

Since 1,688 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-303-5 5.23 MMBTU/HR NATURAL GAS FIRED CLEAVER-BROOKS BOILER #F-2 WITH A CLEAVER BROOKS MODEL CB-700X-125-15 BURNER AND FGR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x 30,000 (MMBtu/yr)
= (0.036 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (30,000 MMBtu/yr)
= 1,688 lb-NO_X/year

Since 1,688 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-360-9 24 MMBTU/HR BOILER C-139 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x 30,000 (MMBtu/yr)
= (0.036 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (30,000 MMBtu/yr)
= 1,688 lb-NO_X/year

Since 1,688 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-361-8 24 MMBTU/HR BOILER C-140 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.
3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x 30,000 (MMBtu/yr)
= (0.036 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (30,000 MMBtu/yr)
= 1,688 lb-NO_X/year

Since 1,688 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-941-3 62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW NOX BURNER WITH FGR

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit is served by a Flue Gas Recirculation (FGR) system to control NO_X emissions. There are no add-on controls for the other criteria pollutants.

3) The steam generator is equipped with a low NOx burner, which is an integral control, and employs FGR as ad-on control. Based on emission factors from AP-42, Table 1.4-1, July 1998, the FGR will provide 36% control of NO_X emissions.

Pre-control Annual PE:

PE = EF (lb/MMBtu) x Heat Input (MMBtu/hr) x 8,760 hr/year
= (0.018 lb-NO_X/MMBtu) ÷ (1 – 0.36) x (62.5 MMBtu/hr) x (8,760 hr/year)
= 15,398 lb-NO_X/year

Since 15,398 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

S-1128-952-2 30.0 MMBTU/HR NATURAL GAS, PROPANE, OR BUTANE-FIRED STRUTHERS STEAM GENERATOR S/N 75/76-37153-2 WITH NORTH AMERICAN BURNER MODEL 4211-30-LE AND O2 CONTROLLER AUTHORIZED TO OPERATE AT VARIOUS UNSPECIFIED LOCATIONS WITHIN THE HEAVY OIL WESTERN STATIONARY SOURCE (ALSO PERMITTED AS S-2010-200 IN LOW SS)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

Compliance with the requirements of 40 CFR Part 64 is demonstrated with the permit conditions listed in the table below:

Permit Unit(s)	Permit Condition(s)
S-1128-18-29	7, 9, 48, 49, and 50
S-1128-29-38	45, 47, 61, 62, and 63
S-1128-30-37	47, 49, 62, 63, and 64
S-1128-31-36	42, 44, 57, 58, and 59
S-1128-32-38	43, 45, 58, 59, and 60
S-1128-33-41	43, 45, 58, 59, and 60
S-1128-34-41	43, 45, 58, 59, and 60
S-1128-36-23	5, 7, 44, 45, and 46
S-1128-48-25	4, 6, 44, 45, and 46

Flares:

S-1128-116-43 THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SULFEROX H2S REMOVAL PLANT, SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383)

1) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
2) The flare in this unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

S-1128-934-4 4.98 MMBTU/HR FLARE WITH CONTINUOUS NATURAL GAS PILOT INCINERATING PRODUCED GAS

3) This unit contains emission limits for NO_X, SO_X, PM_{10}, CO, and VOC.
4) This unit does not have any add-on controls for NO_X, SO_X, PM_{10}, CO, and VOC emissions. Therefore, this unit is not subject to CAM.

IX. PERMIT SHIELD

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

A. Requirements Addressed by Model General Permit Templates

The applicant is not requesting to use any model general permit templates for this Title V renewal project.

B. Requirements not Addressed by Model General Permit Templates

Chevron USA Inc. is not requesting any new permit shields within this Title V renewal project. In addition, Chevron USA Inc. is not requesting any changes to the existing permit shields already included in their Title V operating permit. Therefore, all of the existing permit shields will be maintained on the revised permit for this renewal project.

X. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

XI. ATTACHMENTS

A. Draft Renewed Title V Operating Permit
B. Existing Title V Operating Permit
C. Detailed Facility List
D. Current District Rule SIP Comparisons

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley
Air Pollution Control District

FACILITY: S-1128-0-2 **EXPIRATION DATE:** 02/28/2006

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FACILITY-WIDE REQUIREMENTS

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

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

9. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit

11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit

12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit

13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit

14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit

15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit

16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit

17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit

18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit

19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit

20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit

21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit

24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit

25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit

26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit

27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit

28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit

29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit

30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit

31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit

32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit

33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit

35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit

37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit

38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit

39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

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

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

46. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin April 25 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-4-24 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 01 (NE,NW,SE,SW quarters), T30S, R21E; and Section 36 (SW quarter), T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Flue gas recirculation shall be utilized, as needed, in conjunction with low NOx burner to maintain ongoing compliance with permitted emission limits [District NSR Rule] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 2.46 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
6. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
7. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 34.5 lb-CO/day, and 12,593 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.007 lb-SOx/MMBtu, 0.0068 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 31 ppmvd @ 3% O2 or 0.023 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

37. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

40. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. {534} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-5-25 **EXPIRATION DATE:** 02/28/2006

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

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

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PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 01 (NE,NW,SE,SW quarters), T30S, R21E; and Section 36 (SW quarter), T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 [District Rule 1081] Federally Enforceable Through Title V Permit
4. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 4084, D4468, D6667, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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 performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

38. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-6-14 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-7-5 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

1. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407; District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

9. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 2201] Federally Enforceable Through Title V Permit

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

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

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

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

14. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rules 2201 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 43060] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

28. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 43060] Federally Enforceable Through Title V Permit

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

33. 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

34. 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

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

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

37. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {1678} This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-8-5

EXPIRATION DATE: 02/28/2006

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

EQUIPMENT DESCRIPTION:
8.4 MMBTU/HR NATURAL GAS FIRED CLEAVER BROOKS LOCOMOTIVE BOILER #2

PERMIT UNIT REQUIREMENTS

1. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
2. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
3. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

9. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 2201] Federally Enforceable Through Title V Permit

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

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

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

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

14. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rule 2201 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [District Rule 4306 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

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

33. 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

34. 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

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

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

37. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {1678} This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-11-15 **EXPIRATION DATE:** 02/28/2006

DRAFT

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

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

PERMIT UNIT REQUIREMENTS

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-14-5 **EXPIRATION DATE:** 02/28/2006

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

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

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PERMIT UNIT REQUIREMENTS

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-15-30 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from the unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This unit shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4306] Federally Enforceable Through Title V Permit
4. {581} All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

15. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. {585} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-16-26 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-2 DIS # 43003-81 WITH FGR

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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. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. Flue gas recirculation system shall be operational at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
4. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents, or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit
5. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit
9. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emissions from the steam generator shall not exceed any of the following limits: 0.006 lb-SOx/MMBtu, 0.007 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 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, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

39. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-17-25 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4306] Federally Enforceable Through Title V Permit
4. {581} All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
9. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

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

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

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

15. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. {585} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-18-29 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter and TEOR gas volume flowmeter. [District Rules 2201, 4305,5.4, and 4306, 5.4] Federally Enforceable Through Title V Permit
2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
3. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
4. If installed, low pressure fuel induced recirculation system shall be operated at all times. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Scrubber liquor pH shall be maintained above 6, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR part 64] Federally Enforceable Through Title V Permit
10. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Compliance with the sulfur emission limit requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

26. 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

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

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

29. 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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

36. 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

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

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

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

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

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

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

48. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

49. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

50. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

51. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

52. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-19-25 **EXPIRATION DATE:** 02/28/2006

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

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

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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. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit
7. Emissions from the steam generator shall not exceed any of the following limits: 0.006 lb-SOx/MMBtu, 0.007 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of 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 NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

37. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-21-31 **EXPIRATION DATE:** 02/28/2006

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

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

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 36 (SE), T32S, 23E; Section 01 (NE,NW,SE,SW quarters), T30S, R21E; and Section 36 (SW quarter), T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

11. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

12. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Except during start-up and shutdown periods, emissions from the steam generator shall not exceed any of the following limits: 10.5 ppmvd NOx @ 3% O2 or 0.0128 lb-NOx/MMBtu or 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.036 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 27.6 lb-NOx/day, 7,737 lb-NOx/yr, 52.2 lb-CO/day, and 12,693 lb-CO/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

31. 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

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

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

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

35. Operator shall provide an annual fuel analysis to the District. [District Rule 4320] Federally Enforceable Through Title V Permit

36. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

39. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

40. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

41. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

43. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

44. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

45. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

46. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

47. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

48. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

49. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

50. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

51. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-25-36 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 62, DIS# 41764-06) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. Permittee shall maintain 0.5 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This generator is approved to operate at the following locations: Sec. 31, T29S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, D4468, D6228, and double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 10.5 ppmvd NOx @ 3% O2 or 0.0128 lb-NOx/MMBtu or 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.036 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 27.6 lb-NOx/day, 7,737 lb-NOx/yr, 52.2 lb-CO/day, and 12,693 lb-CO/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

37. 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

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

39. Operator shall provide an annual fuel analysis to the District. [District Rule 4320] Federally Enforceable Through Title V Permit

40. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules 2201 and 4406] Federally Enforceable Through Title V Permit

41. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

46. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

47. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

48. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

49. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

50. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-26-32 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 63, DIS# 43003-79) WITH FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

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PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from the unit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. Until June 1, 2007, the operators shall notify the District at least seven (7) calendar days prior to recommencing operation of this dormant emissions unit, at which time this permit will be administratively modified to remove DEU references. [District Rule 4305] Federally Enforceable Through Title V Permit
5. On or after June 1, 2007, this equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. Steam generator may be operated with North American perforated or solid "S" diffuser plates, four variations of North American solid "S" diffuser plate, or three types of North American Company prototype diffuser plates. After changing burner diffuser plate, stack concentration of NOx (as NO2), CO, and O2 shall be measured by a District approved portable analyzer. Changes in burner diffuser plates and subsequent emission measurements shall be recorded in a contemporaneous log. [District Rule 2520 section 6.4.2] Federally Enforceable Through Title V Permit
7. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
8. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. Upon recommencing operation, the operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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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. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

19. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. {534} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

22. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

23. Upon recommencing operation, permittee shall maintain 0.5 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

24. This generator is approved to operate at the following locations: Sec. 31, T29S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Upon recommencing operation, the permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Upon recommencing operation, emission rates shall not exceed PM10: 0.038 lb/MMBtu, SOx (as SO2): 0.324 lb/MMBtu, NOx (as NO2): 0.036 lb/MMBtu or 30 ppmv @ 3% O2, VOC: 0.003 lb/MMBtu, and CO: 0.021 lb/MMBtu or 29 ppmv @ 3% O2. [District Rules 4305 and NSR] Federally Enforceable Through Title V Permit

27. Upon recommencing operation, the stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers in any calendar month in which the unit operates. [District Rules 2520, 9.3.2 and 4305] Federally Enforceable Through Title V Permit

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

38. When incinerating vapor recovery gas, testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

39. Upon recommencing operation, the permittee shall keep daily records of the amount of natural gas and vapor recovery gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

41. Upon recommencing operation, the following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, and fuel gas sulfur content - ASTM D3246. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit

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

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

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

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

46. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

48. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

49. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

50. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93721. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-27-24 **EXPIRATION DATE:** 02/28/2006

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SECTION: 07 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #53 DIS# 43010-78 WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.3 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Approved locations for this equipment: Sec. 7, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; SE/4 of Sec. 35, T29S/21E; and SE/4 of Sec. 8, T30S/R22E. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
4. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. The sulfur content of fuel combusted shall not exceed 2.46 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Flue gas recirculation shall be utilized, as needed, in conjunction with low NOx burner to maintain ongoing compliance with permitted emission limits [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
8. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Emissions from the steam generator shall not exceed any of the following limits: 0.007 lb-SOx/MMBtu, 0.0068 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 31 ppmvd @ 3% O2 or 0.023 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

41. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. {534} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-28-22 **EXPIRATION DATE:** 02/28/2006

SECTION: 07 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
69.0 MMBTU/HR NATURAL/TEOR GAS-FIRED STEAM GENERATOR #52 DIS# 43014-78 WITH NORTH AMERICAN MAGNA-FLAME GLE LOW-NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

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PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.3 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District Rule 2201] Federally Enforceable Through Title V Permit
2. This generator is approved to operate at the following locations: Section 7, T30S, R22E; SW/4 of Section 36, T29S, R21E; NE/4, NW/4, SE/4, and SW/4 of Section 1, T30S, R21E; SE/4 of Section 35, T29S, R21E; SW/4 and SE/4 of Section 6, T30S, R22E; SW/4 of Section 31, T29S, R22E; SE/4 and SW/4 of Section 8, T30S, R22E; and all of Sections 19 and 20, T30S, R22E. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. {524} When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

10. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2, 4306, and 4320] Federally Enforceable Through Title V Permit

11. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

12. {530} Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0068 lb-PM10/MMBtu, or 0.011 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Except during start-up and shutdown periods, emissions from the steam generator shall not exceed any of the following limits: 10.5 ppmvd NOx @ 3% O2 or 0.0128 lb-NOx/MMBtu or 31 ppmvd CO @ 3% O2 or 0.023 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. During start-up and shutdown periods emissions from the steam generator shall not exceed 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 21.2 lb-NOx/day, 7,737 lb-NOx/yr, 54.9 lb-CO/day, and 13,902 lb-CO/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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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 analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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 performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

36. Operator shall provide an annual fuel analysis to the District. [District Rule 4320] Federally Enforceable Through Title V Permit

37. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {534} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-29-38 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 55, DIS# 41752-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, SHARED SO2 SCRUBBER WITH S-1128-30, -31, -32, -33, AND -34 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lbs-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit
5. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

11. 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

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

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

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

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

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] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

21. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 43060] Federally Enforceable Through Title V Permit

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

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

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

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

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, 6.1 and 4306] 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

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29. Operation shall include one gas/liquid knockout vessel. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with gas/liquid separator shall not exceed 1.2 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

30. VOC content of hydrocarbons in gas processed by gas/liquid separator shall not exceed 30%. [District NSR Rule] Federally Enforceable Through Title V Permit

31. VOC content of hydrocarbons in TEOR gas processed by gas/liquid separator shall be measured upon startup and annually thereafter. [District NSR Rule] Federally Enforceable Through Title V Permit

32. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

33. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

34. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

37. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

42. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

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

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

45. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

47. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

48. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

50. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

52. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

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54. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

58. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

59. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

60. Records of VOC content of the hydrocarbons in the TEOR gas processed by gas/liquid separator shall be kept at the facility and made readily available for compliance inspection upon request for a period of 5 years. [District Rule 1070] Federally Enforceable Through Title V Permit

61. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

62. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

63. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

64. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

66. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

67. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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68. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

69. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

70. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

71. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

72. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

73. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-30-37 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 56, DIS # 41753-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. During operation of the SOx scrubber, sulfur compound emissions shall be controlled by at least 95% by weight or stack SO2 shall not exceed 30 ppmvd at stack O2. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, and 4306] Federally Enforceable Through Title V Permit
6. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306] Federally Enforceable Through Title V Permit
7. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

12. 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

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

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

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

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

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, 5.5.2,and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, and 4306] 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. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

31. 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

32. 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

33. {581} All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

34. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

35. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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

38. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

42. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

44. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

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

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

47. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

49. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

50. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

52. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

55. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

56. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

58. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

59. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

60. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

61. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

62. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

63. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

64. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

65. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

66. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

67. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

68. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

69. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

70. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

71. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

72. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

73. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

74. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

75. The sulfur content of the fuel oil shall be no greater than 1.1% by weight on an annual average basis and no greater than 1.38% by weight on a daily maximum average basis, as determined by ASTM Methods D115-68, D129-64, or D151-64, or equivalent methods approved by the EPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

76. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24- hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

77. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

78. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

79. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 41; for NOx the units designated in condition 43. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

80. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31,32,33,39] Federally Enforceable Through Title V Permit

81. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

83. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-31-36

EXPIRATION DATE: 02/28/2006

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SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 57, DIS# 41763-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.133 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.133 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
5. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. 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

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

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

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

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

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

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

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

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, 5.5.2 and 4306] Federally Enforceable Through Title V Permit

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

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] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2 and 43060] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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, 6.1 and 4306] Federally Enforceable Through Title V Permit

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

30. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

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

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

33. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

36. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

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

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

42. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

44. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

45. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

47. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

48. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

51. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

52. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

53. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit

58. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit

59. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit

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

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

62. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

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

64. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

65. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

66. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93721. [PSD SJ 77-41] Federally Enforceable Through Title V Permit

67. Records of VOC content of the hydrocarbons in the TEOR gas processed by gas/liquid separator shall be kept at the facility and made readily available for compliance inspection upon request for a period of 5 years. [District Rule 1070] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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68. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

70. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-32-38 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 58, DIS# 41751-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC) AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit
5. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

11. 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

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

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

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

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

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] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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, 6.1 and 4306] Federally Enforceable Through Title V Permit

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 Rule 1070] Federally Enforceable Through Title V Permit

30. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

31. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

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

33. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

36. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

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

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

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

58. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

59. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

60. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

61. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

65. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

66. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

67. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

68. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

70. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-33-41 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 59, DIS# 41758-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit
5. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

11. 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

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

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

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

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

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] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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, 6.1 and 4306] Federally Enforceable Through Title V Permit

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 Rule 1070] Federally Enforceable Through Title V Permit

30. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

31. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

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

33. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

36. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

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

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

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

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

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

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52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

58. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

59. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

60. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

61. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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65. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

66. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

67. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

68. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

70. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-34-41 **EXPIRATION DATE:** 02/28/2006

SECTION: NE36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 59, DIS# 41758-06) WITH A NORTH AMERICAN MODEL GLE MAGNA-FLAME LOW NOX BURNER, WITH EXHAUST VENTED TO SHARED SO2 SCRUBBER LISTED ON S-1128-29 (CYMRIC), AND BRINKS MIST ELIMINATOR SYSTEM ON SCRUBBER EXHAUST

PERMIT UNIT REQUIREMENTS

1. During start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 83 ppmvd NOx @ 3% O2 or 0.1 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 115 ppmvd CO @ 3% O2 or 0.084 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
2. Except during start-up and shutdown, emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu, 0.324 lb-SOx/MMBtu, 0.038 lb-PM10/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule and Rules 4305 and 4306] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed either of the following limits: 54.0 lbs-NOx/day or 31.5 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit
5. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

11. 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

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

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

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

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

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] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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, 6.1 and 4306] Federally Enforceable Through Title V Permit

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when H2S loading exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District NSR Rule and Rule 4101] Federally Enforceable Through Title V Permit

31. Operator shall maintain an accurate operational log for the Brinks mist eliminator including date, time, duration, the reason the mist eliminator was bypassed, and the sulfur loading. [District Rule 1070] Federally Enforceable Through Title V Permit

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

33. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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

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

36. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or EPA Method 8; or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

37. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by double GC for H2S and mercaptans performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

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

40. Permittee shall maintain 0.39 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit

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

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

43. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

45. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

46. Exhaust gas scrubber and Brinks mist eliminator need not operate when compliance with all emissions limitations is achieved without their use. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

48. Permittee shall maintain records of fuels hhv and cumulative annual fuels use for a period of five years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

49. Permittee shall keep daily records of the amounts of natural gas and secondary fuel gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

50. Total SO2 emissions discharged to the atmosphere from permit units S-1128-29, `-30, `-31, `-32, `-33, and `-34 shall not exceed 292,000 lb per year. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

51. The steam generators may be fired on natural gas; natural gas and secondary fuel recovered from thermally enhanced oil recovery operations S-1128-116, '-128, '-130, '-144, '-385, tank battery vapor control system S-1128-248, and/or partially desulfurized gas discharged from sulfur removal plant S-1128-116; or any combination thereof. The use of different combinations of approved fuels or switching of approved fuels shall not be considered a physical change or change in operation, where the use of fuel is authorized by permit issued under regulations approved in accordance with 40 CFR 51.165 or by a permit issued under 40 CFR 52.21. [40 CFR 51.165(a) (1)(v)(C)(5)(ii), 40 CFR 51.166 (b)(2)(iii)(e)(2), 40 CFR 52.21 (b)(2)(iii)(e)(2)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

52. Permittee shall record the weekly volume of natural gas and the weekly volume of secondary fuel burned in each steam generator S-1128-29 through S-1128-34. Records of these weekly amounts of the fuels burned shall be maintained for a period of at least five years and shall be readily available upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

53. Each week the permittee shall determine the total SO2 emitted from S-1128-29 through S-1128-34 utilizing the SO2 and oxygen (O2) concentrations in the exhaust stack gas using handheld or transportable gas analyzers. The analyzers shall be calibrated, operated, and maintained as specified by the District Rule 1081. Mass emissions of SO2 shall be calculated using measured exhaust stack gas concentrations of SO2 and O2, and the measured fuel rates (primary fuel + secondary fuel) using EPA F-Factors, determined in accordance with EPA Method 19. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

54. Permittee shall maintain records of the weekly, monthly, and annual SO2 emissions for S-1128-29 through S-1128-34 for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

55. Each steam generator SO2 emissions shall be apportioned from the total SO2 emissions by proportioning the amount of sulfur in the fuels, both primary and secondary, burned in each steam generator to the total primary and secondary fuels burned in all six steam generators. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

56. Permittee shall maintain records documenting steam generator emissions of SO2 for a period of at least 5 years and shall make the records readily available for inspection upon District request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

57. Permittee shall maintain records of the exhaust gas scrubber and Brinks mist eliminator dates and times of startup and shutdown, and any corrective actions undertaken to improve performance for a period of at least 5 years and shall make such records readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

58. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

59. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

60. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

61. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

62. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

63. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

64. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State or local regulations. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

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65. Source tests shall be conducted on the 145 wells associated with this permit and 22 existing pilot displacement wells. Source tests shall be conducted on a semi-annual basis to establish the efficiency of non-methane hydrocarbon recovery. The efficiency shall be no lower than 85%. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

66. Permittee shall undertake the road paving program as outlined in their application and shall pave 4.45 miles of the roads in the Cymric Oil Field area. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

67. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 33, 41] Federally Enforceable Through Title V Permit

68. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

70. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-35-33 **EXPIRATION DATE:** 02/28/2006

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SECTION: SW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 89) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR

PERMIT UNIT REQUIREMENTS

1. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
6. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 47 ppmvd @ 3% O2 or 0.035 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit
7. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 52.5 lb-CO/day, and 19,163 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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 analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

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

33. 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

34. 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

35. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

36. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

37. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

39. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

40. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

41. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

42. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

44. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

45. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

46. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

47. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

48. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

49. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

50. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

51. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

52. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-36-23

EXPIRATION DATE: 02/28/2006

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

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Scrubber liquor pH shall be maintained between 6 and 8 and shall be continuously monitored and recorded during operation of this unit. [District NSR Rule and District Rule 2520, 9.4.1 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
6. Scrubber mist eliminator shall be properly cleaned and maintained per the recommendations of the manufacturer. Each occurrence of the cleaning and maintenance shall be recorded. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
7. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. The scrubber recirculation liquor liquid to gas ratio shall be recorded on a weekly basis. [District NSR Rule and District Rule 2520, 9.4.1 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit
10. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

13. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District NSR Rule, and District Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

31. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

40. 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

41. 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

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

43. Records of the scrubber liquor pH, occurrences of the cleaning and maintenance of the scrubber mist eliminator, and the scrubber liquid-to-gas ratio shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

46. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

47. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

50. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

51. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

52. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

53. Annual source testing shall be performed on one vapor recovery system consisting of 32 wells and on a second vapor recovery system on 3 wells to establish the efficiency of the vapor recovery system. The efficiency the 3-well system. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

54. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (2) 50 MMBtu/hr steam generators and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. (One of the 50 MMBtu/hr units is to be scrubbed for offset purposes.) Exhaust gases from the above units shall be ducted through operating scrubbers . [PSD SJ 77-29] Federally Enforceable Through Title V Permit

55. Permittee shall not discharge into the atmosphere SO2 in excess of 0.13 lb/MMBtu (maximum 2-hour average) for the steam generators designated in condition 38. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

56. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by USEPA. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

57. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generator and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in condition 40. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

58. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

59. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

60. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-38-26 **EXPIRATION DATE:** 02/28/2006

SECTION: 25 **TOWNSHIP:** 31S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (#94)

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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. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. This equipment is approved to be operated at the following locations: Sec. 25, T31S/R22E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S/R21E; SW/4 of Sec. 36, T29S/R21E; and the SE/4 of Sec. 35, T29S/R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Only PUC-quality natural gas or a combination of natural gas and vapor recovery gas shall be used as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The combined PM10 emission rate for steam generators S-1128-38 and -158 shall not exceed 21.0 lb/day whenever steam generator S-1128-38 is at any of the following locations: Sec. 26, T32S/R23E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S/R21E; SW/4 of Sec. 36, T29S/R21E; and the SE/4 of Sec. 35, T29S/R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain records of fuel type, quantity, and results of monthly vapor recovery gas sulfur analyses, and such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Permittee shall maintain records of the dates, locations, and daily fuel consumption for steam generators S-1128-38 and -158, and such records shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
9. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

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

15. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

41. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the TEOR/TVC gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

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

43. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

44. Permittee shall maintain daily records of volume of fuel gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

48. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

49. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

50. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

51. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

52. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

53. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

54. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

55. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

56. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

57. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (2) 22 MMBtu/hr steam generators to be located in Section 1, T11N, R24W; (5) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 2, T11N, R24W; (1) 50 MMBtu/hr steam generator to be located in Section 31, T12N, R23W; (3) 50 MMBtu/hr steam generators and (1) 22 MMBtu/hr steam generator to be located in Section 25, T32S, R23E; and (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by the USEPA. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

58. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average) for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

59. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

60. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 44; for NOx the units designated in condition 46. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

61. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31, 32, 33, 39] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-44-5 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-3

PERMIT UNIT REQUIREMENTS

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-45-7 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-4

PERMIT UNIT REQUIREMENTS

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-48-25 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-4-26C) EQUIPPED WITH A NORTH AMERICAN MAGNAFLAME GLE ULTRA-LOW NOX BURNER WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
7. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
8. {524} When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC for H2S and mercaptans performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

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

16. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb/MMBtu, 29 ppmvd CO @ 3% O2 or 0.021 lb/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

41. 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

42. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The permittee shall keep daily records of the amount of natural gas and vapor recovery gas combusted, and the date and duration of scrubber operation, for a period of five years, and shall make records available for inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

44. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit

45. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

46. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

47. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

51. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77- 31] Federally Enforceable Through Title V Permit

52. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

53. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

54. Permittee shall have installed a hydrocarbon vapor recovery system, having a collection efficiency of 85% on the following: (143) steam drive producing wells designated in this PSD permit, plus (16) existing steam drive producing wells located in Section 16, T30S, R22E, M.D.B. & M. This system shall be installed on existing wells prior to project start-up, and on new or modified wells before venting steam to the atmosphere. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

55. At such times as specified by the USEPA, permittee shall conduct performance tests for HC and furnish the District and the USEPA a written report of the results of such tests. The tests for HC shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

56. Performance tests shall be conducted for each vapor recovery system listed above in the Cymric and Taft areas. The USEPA shall be notified at least 30 days in advance of such test to allow an observer to be present. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

57. Permittee shall not discharge or cause the discharge of VOC into the atmosphere in excess of 50.6 lbs/day for each well in the system. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

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

59. Permittee shall not discharge into the atmosphere SO2 in excess of 0.145 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the previous condition. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

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

61. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average)for the 50 MMBtu/hr steam generators and 0.57 lb/MMBtu (maximum 2-hour average)for the 22 MMBtu/hr steam generators designated in the previous condition. [PSD SJ 77- 31] Federally Enforceable Through Title V Permit

62. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

63. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 41; for NOx the units designated in condition 43. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

64. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: A-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-31] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-56-14 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
DORMANT 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID# 50-5-26C, DIS# 43303-80) WITH SO2 SCRUBBER

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
5. Emission rates shall not exceed PM10: 0.036 lb/MMBtu, SOx (as SO2): 0.070 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu @3% O2, VOC: 0.003 lb/MMBtu, and CO: 0.021 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-57-16 **EXPIRATION DATE:** 02/28/2006

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

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 LOW NOX BURNER AND FGR (#50-6 DIS #43012-81)

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. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
3. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Emissions from the steam generator shall not exceed any of the following limits: 0.087 lb-SOx/MMBtu, 0.045 lb-PM10/MMBtu, or 0.013 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4351, 5.1] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

14. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of 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 NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

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

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

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

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

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

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

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

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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

32. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

34. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

36. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit

37. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-58-15 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-7 DIS# 43013-81 WITH FGR AND NORTH AMERICAN GLE ULTRA-LOW NOX BURNER

PERMIT UNIT REQUIREMENTS

1. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter and vapor recovery gas volume flowmeter. [District Rules 2201, 4305,5.4, and 4306, 5.4] Federally Enforceable Through Title V Permit
2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407; District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules NSR and 4406] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

12. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: SOx (as SO2): 0.087 lb/MMBtu; PM10: 0.045 lb/MMBtu; or VOC: 0.013 lb/MMBtu. [District Rules 2201, 4201, 3.1, 4301, 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmvd @ 3% O2, or CO: 0.025 lb/MMBtu or 33.8 ppmvd @ 3% O2. [District Rules 2201, 2520, 9.3.2, 4201, 3.1, 4301, 5.2, 5.3, and 5.5, 4305 and 4306] Federally Enforceable Through Title V Permit

15. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

16. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54 lb-NOx/day, 9,855 lb-NOx/yr, 37.5 lb-CO/day, and 13,688 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

23. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

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 source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

26. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

27. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

28. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306] Federally Enforceable Through Title V Permit

30. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

31. 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

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

33. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {1678} This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. The permittee shall keep daily records of the amount of natural gas and vapor recovery gas combusted, permit number(s) of vapor recovery systems providing gas for incineration, and shall make records available for inspection upon request. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-61-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-2

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
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 Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306]
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule]
5. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4306]
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-66-22 **EXPIRATION DATE:** 02/28/2006

SECTION: NE01 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 82, DIS# 26753-80) WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE FOR BLOWER MOTOR, AND O2 ANALYZER FOR FGR CONTROL

PERMIT UNIT REQUIREMENTS

1. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
7. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
9. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 47 ppmvd @ 3% O2 or 0.035 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 52.5 lb-CO/day, and 19,163 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

13. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

33. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {534} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. All equipment, facilities, or systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

42. The regional administrator shall be notified within fifteen (15) days following any sudden and unavoidable failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions, and shall be notified of the estimated resultant emissions in excess of those projected under normal operations; and the methods to be utilized to restore normal operations. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. In the event that any National Ambient Air Quality Standard (NAAQS) for sulfur-oxides (3-hour, 24-hour and annual average as provided by 40 CFR 50) is exceeded at any time, at either the CARB or the Westside Operators' SO2 monitors in the McKittrick area, permittee shall take the control measures specified below, to maintain emissions at the existing levels. The control measure requirements of this permit must be met within twenty-four (24) hours of notification of any exceedance of the NAAQS for sulfur oxides. Also, within twenty-four (24) hours of notification of an exceedance, permittee shall report the exceedance and their control measures to the District and to the EPA's Chief of the Enforcement Section. [PSD SJ 76-24, a.1] Federally Enforceable Through Title V Permit

44. In the event that both the CARB or the Westside Operators' SO2 monitors in the McKittrick area are removed from their present locations or are shutdown for a period exceeding 6 months, permittee shall reinstall the Chevron McKittrick Oil Field SO2 monitoring station at its present location. The reinstalled station shall meet the technical specifications of the EPA and the District. Permittee shall then perform continuous ambient air monitoring at the previously approved site location. All monitoring data shall be reported to the District at least monthly or as further specified by the District. [PSD SJ 76-24, a.2] Federally Enforceable Through Title V Permit

45. In the event that there is an exceedance of any NAAQS for SOx (3-hour, 24-hour and annual average as provided by 40 CFR 50) at the monitoring station described herein after construction and operation of the three proposed steam generators, one heater-treater, and associated equipment, permittee shall take control measures to reduce emissions to the emission levels in the McKittrick Oil Field (The Field) as they existed before the construction of the new equipment. These measures shall consist of: shutting down as many generators and associated equipment in The Field as is necessary to effect a reduction of 669 barrels per day of fuel consumption; or the use of a low sulfur fuel oil in as many generators in The Field to reduce SO2 emissions by 2.7 tons/day; or such technology as approved by USEPA which would reduce SO2 emissions by 2.7 tons/day; or any combination of the above. Any emission reductions accomplished for the purpose of avoiding an exceedance of any NAAQS shall be permanent and emissions shall not be increased thereafter. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

46. Permittee shall not use any stacks higher than 50 feet (as measured from ground to top of stack) on any generator in the McKittrick Oil Field. [PSD SJ 76- 24] Federally Enforceable Through Title V Permit

47. Permittee shall install and operate a casing-head vapor recovery system on their existing steam flood project as described on P. 15 of their application. [PSD SJ 76-24] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-68-13 **EXPIRATION DATE:** 02/28/2006

SECTION: 1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 76, DIS# 43016-82) NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER WITH FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 CONTROLLER - CYMRIC

PERMIT UNIT REQUIREMENTS

1. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
7. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
9. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

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10. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

13. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

22. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

24. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

25. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

27. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

28. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

29. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

33. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

35. 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

36. 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

37. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {585} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-75-18 **EXPIRATION DATE:** 02/28/2006

SECTION: 1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 91, DIS# 43001-85) WITH NORTH AMERICAN MAGNA FLAME GLE LOW-NOX BURNER AND FLUE GAS RECIRCULATION APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: Section 1, T30S, R21E; SW 1/4 of Section 36, T29S, R21E; and SW 1/4 Section 6Z, T30S, R22E. [District NSR Rule and District Rule 4102] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of District Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-76-14 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 93, DIS# 37425-2) WITH A NORTH AMERICAN GLE MAGNA-FLAME LOW-NOX BURNER, FLUE GAS RECIRCULATION, VARIABLE FREQUENCY DRIVE, AND O2 ANALYZER (PERMITTED FOR VARIOUS SPECIFIED LOCATIONS)

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PERMIT UNIT REQUIREMENTS

1. This generator is permitted to operate at the following locations: NE 1/4 Section 26 and NW 1/4 Section 25, T32S, R23E; all of Section 1, R30S, T21E; NW 1/4 Section 7, R30S, T22E; Section 36, T31S, R23E; SW 1/4 Section 6, R30S, T22E; and all of Section 19 and 20, R30S, T22E. [District Rule 2201 and District Rule 4102] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Emission rates shall not exceed PM10: 0.005 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.007 lb/MMBtu, and CO: 0.021 lb/MMBtu or 29 ppmv @ 3% O2. [District NSR Rule and District Rules 4305, 5.1.1 and 4306, 5.1.1] Federally Enforceable Through Title V Permit

12. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

13. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 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 NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

16. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

17. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

20. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

21. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

22. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306] Federally Enforceable Through Title V Permit

23. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 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. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

26. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

27. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] 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

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30. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

31. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

32. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-77-17 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR (CUSA ID# 92, DIS# 43003-85) WITH A NORTH AMERICAN MODEL MAGNA FLAME GLE-4231 LOW NOX BURNER AND A WITH FLUE GAS RECIRCULATION, APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. Approved locations for this equipment: NE 1/4 Section 26 and NW 1/4 Section 25, T32S, R23E; SE 1/4 Section 1, R30S, T21E; NW 1/4 Section 7, R30S, T22E; Section 36, T31S, R23E; and SW 1/4 Section 6Z, T30S, R22E. [District Rule 4102]
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

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10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-79-13 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR #95 (DIS#43007-85) EQUIPPED WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 26, T32S/R23E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S/R21E; SW/4 of Sec. 36, T29S/R21E; and the SE/4 of Sec. 35, T29S/R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

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10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 28 ppmvd @ 3% O2 or 0.020 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 30.5 lb-CO/day, and 11,114 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

39. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-80-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 96) WITH FGR - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD

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PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 26, T32S, R23E; NE/4, NW/4, SE/4, SW/4 of Sec. 1, T30S, R21E; SE/4 and SW/4 of Sec. 36, T29S, R21E; and the SE/4 of Sec. 35, T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

39. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {585} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-111-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 72) WITH A NORTH AMERICAN MODEL #4231 G-LE MAGNA FLAME LOW-NOX BURNER WITH VARIABLE FREQUENCY DRIVE FOR THE BLOWER MOTOR, FGR, AN O2 ANALYZER FOR FGR CONTROL, AND APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. This generator is approved to operate at the following locations: Sec. 6, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

39. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {585} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-112-15 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
69.0 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FLUE GAS RECIRCULATION (CUSA ID# 73) APPROVED TO OPERATE AT VARIOUS SPECIFIED LOCATIONS

PERMIT UNIT REQUIREMENTS

1. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. This generator is approved to operate at the following locations: Sec. 6, T30S/R22E; SW/4 of Sec. 36, T29S/R21E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S/R21E; and SE/4 of Sec. 35, T29S/21E. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4320]
5. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
7. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2, 4306, and 4320] Federally Enforceable Through Title V Permit

10. {524} When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6; or ARB Method 100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculate emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rules 2520, 9.3.2 and 4320]

12. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District Rule 2201]

13. Except during start-up and shutdown periods, emissions from the steam generator shall not exceed any of the following limits: 10.5 ppmvd NOx @ 3% O2 or 0.0128 lb-NOx/MMBtu or 29 ppmvd CO @ 3% O2 or 0.021 lb-CO/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

14. During start-up and shutdown periods emissions from the steam generator shall not exceed 0.084 lb-CO/MMBtu. [District Rule 2201]

15. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 21.2 lb-NOx/day, 7,737 lb-NOx/yr, 52.2 lb-CO/day, and 12,693 lb-CO/yr. [District Rules 2201, 4305, 4306, and 4320]

16. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

17. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

26. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

31. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

35. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

36. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

37. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

40. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

41. Operator shall provide an annual fuel analysis to the District. [District Rule 4320]

42. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {585} Compliance with permit conditions in the Title V permit shall be deemed compliance with the requirements of County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. {520} The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-113-15 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR (CUSA ID# 97) WITH A NORTH AMERICAN MAGNA-FLAME GLE LOW-NOX BURNER AND FGR - VARIOUS SPECIFIED LOCATIONS IN THE CYMRIC OILFIELD

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PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 26, T32S, R23E; NE/4, NW/4, SE/4, and SW/4 of Sec. 1, T30S, R21E; SE/4 and SW/4 of Sec. 36, T29S, R21E; and the SE/4 of Sec. 35, T29S, R21E. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201] Federally Enforceable Through Title V Permit
3. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
4. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.005 lb-PM10/MMBtu, or 0.007 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

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10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

39. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-116-43 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-36W #1 SERVING 146 STEAM ENHANCED WELLS INCLUDING SIX AUTOMATIC WELL TEST STATIONS AND GAS PIPING TO SULFEROX H2S REMOVAL PLANT, SCRUBBED STEAM GENERATORS, SEPARATOR VESSEL FV-3A, DOGGR APPROVED DISPOSAL WELL(S), OR SHARED KALDAIR EMERGENCY FLARE (FLARE SHARED WITH S-1128-128, S-1128-130, S-1128-144, S-1128-248, AND S-1128-383)

PERMIT UNIT REQUIREMENTS

1. The Kaldair flare shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The air-assisted John Zink flare shall not discharge air contaminants into the atmosphere which exceeds 5% opacity or Ringelmann 1/4 for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Operation of flares for other than maintenance and testing shall be limited to unforeseen electrical power outages or emergencies (as defined below) that results in the inability to dispose of the vapors in devices approved for that purpose. Emergency is defined as an unforeseeable failure or malfunction of operating equipment that 1) is not due to neglect or disregard of air pollution laws or rules; 2) is not intentional or the result of negligence; 3) is not due to improper maintenance; 4) does not constitute a nuisance; and 5) results in the use of equipment exempted from offsets by Rule 2201 to prevent or ameliorate an unsafe situation. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The owner or operator shall notify the District of any emergency use of the flare within one hour after confirmation that an actual flaring event has occurred, unless the owner or operator demonstrates to the District's satisfaction that a longer notification period was necessary. However, in the event that confirmation of an actual flaring event cannot be made, then the owner or operator shall notify the District no more than 3 hours after an alarm indicates that a flaring event may have occurred, unless the owner or operator demonstrates to the District's satisfaction that a longer notification period was necessary. [District Rule 1070] Federally Enforceable Through Title V Permit
5. Operation of each flare shall not exceed 200 hours per year for purposes of flare maintenance and testing. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Operation of John Zink flare, for purposes of flare maintenance and testing, shall not exceed any of the following sour gas emission rates per year: 374 lb NOx/year, 20,000 lb SOx/year, 3,894 lb PM10/year, 347 lb VOC/year and 2035 lb CO/year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Sulfur compound combustion emissions shall not exceed 2000 ppmv as SO2. [District Rule 4801; Kern County Rule 407] Federally Enforceable Through Title V Permit
8. Fugitive VOC emission rate from fugitive component counts of the TEOR vapor control system (including stuffing boxes), calculated using U.S. EPA publication 453/R-95-017, Table 2-4, based on 50% VOC by weight of Total Organic Content (TOC), shall not exceed 264.0 lb/day. [District Rule 2210] Federally Enforceable Through Title V Permit

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9. Operator shall conduct quarterly gas sampling from Sample Point No. 1 (inlet) to SulFerox plant and Sample Point No. 2 (discharge) from SulFerox plant to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If gas samples are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of all components downstream of vessel FV1. Sample Point No. 1 (inlet) is downstream of vessel FV1 and upstream of the SulFerox plant and representative of gas downstream that has not been processed through the SulFerox plant. Sample Point No. 2 (discharge) represents gas that has been processed through the SulFerox plant. [District Rule 2201] Federally Enforceable Through Title V Permit

10. If operator determines that the flow back system does not operate successfully, then the flow back system may be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Existing Tulare injection wells are authorized to operate as either flow back wells or injection wells until such a time as the DOGGR injection permit for the existing Tulare injection wells is terminated. Upon termination of the Tulare injection well permit by DOGGR, the existing Tulare injection wells will continue to operate as flow back wells only or be idled and/or removed. [District Rule 2201] Federally Enforceable Through Title V Permit

12. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit

13. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit

14. The operation includes heat exchanger(s), gas/liquid separator(s), condensate tank(s), compressor(s), gas volume flow rate and temperature indicator, and gas piping to SulFerox plant. [District NSR Rule] Federally Enforceable Through Title V Permit

15. The system includes piping from pipeline vent pot 1 to casing gas collection line, and vapor piping from 6 automatic well test vessels (3 at GS#5 and three at GS#6) in Section 36, T29S, R21E. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The system includes gas piping from vapor control systems 36W #1 TEOR S-1128-116, 31X TEOR S-1128-128, 36W #2 TEOR S-1128-130, 5Z/6Z TEOR S-1128-144, 31X tank battery S-1128-248, Mckittrick Diatomite TEOR S-1129-864, and 1Y TEOR S-1128-385, TEOR flow back vapor collection from Tulare formation wells (previously used for disposal), and sweetened gas from SulFerox plant. [District NSR Rule] Federally Enforceable Through Title V Permit

17. John Zink flare field sour gas line shall be equipped with an operational flow meter. John Zink flare pilot gas line shall be equipped with an operational flow meter and pilot gas flow rate shall not exceed 12000 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Kaldair flare pilot gas line shall be equipped with an operational flow meter and pilot gas flow rate shall not exceed 4800 scf/day. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Only PUC quality natural gas shall be used as pilot gas in the flare. [District NSR Rule] Federally Enforceable Through Title V Permit

20. When operated, each flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. SulFerox plant includes sparge tower, gas/liquid separator(s), chemical regenerator vessel(s), chemical tank(s), sulfur press, sulfur bin(s), sweet gas outlet separator(s), particulate filter(s), and sweet gas piping to field gas system and DOGGR approved disposal wells. [District NSR Rule] Federally Enforceable Through Title V Permit

22. SulFerox offgas H2S content shall not exceed 12 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit

23. S-1128-116 TEOR gas volume shall not exceed 1.5 MMscf/day. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. An I & M program as described in Rule 4403 (amended 2/16/95) shall be implemented for all new well stuffing boxes. [District NSR Rule] Federally Enforceable Through Title V Permit

25. Permittee shall measure the H2S content of the SulFerox plant's inlet gas stream at least once per day using a gas detection tube. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Permittee shall measure the H2S content of the SulFerox plant's outlet gas stream at least once every 6 hours using a gas detection tube or operational H2S analyzer/monitor. Permittee shall maintain records of the outlet gas stream H2S content (ppmv). [District NSR Rule] Federally Enforceable Through Title V Permit

27. If the H2S content of the SulFerox plant's outlet gas stream is measured at 6 ppmv or higher using gas detection tubes, the permittee shall measure the H2S content once every 2 hours using gas detection tubes until the measured content drops below 6 ppmv, whereafter the measuring frequency will revert to every 6 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

28. Gas detection tubes used to measure outlet and inlet H2S content shall have calibrated ranges between 1.5 and 30 ppmv for the outlet and 1,000 and 20,000 ppmv for the inlet when H2S concentration is below 20,000 ppmv and 2,000 and 40,000 ppmv for the inlet when H2S concentration equals or is above 20,000 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Permittee shall measure and maintain a daily record of flare pilot gas volumes, John Zink flare field sour gas volume, TEOR S-1128-116 gas volume, and shall maintain an annual record of the number of hours of operation of each flare. [District Rule 2201] Federally Enforceable Through Title V Permit

30. With prior District approval, record keeping frequency of treated gas H2S content may be reduced upon demonstration of consistency of SulFerox process. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s), and shall make such listings readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

32. A flame shall be present at all time when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit

33. 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, 5.3] Federally Enforceable Through Title V Permit

34. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit

35. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit

36. Permittee shall maintain copies of the compliance determination conducted pursuant to Section 6.4.1, and copies of the source testing result conducted pursuant to Section 6.4.2. [District Rule 4311, 6.1] Federally Enforceable Through Title V Permit

37. 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, 6.1] Federally Enforceable Through Title V Permit

38. 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, 6.1] Federally Enforceable Through Title V Permit

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39. 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, 6.2.3] Federally Enforceable Through Title V Permit

40. 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, 6.3.1] Federally Enforceable Through Title V Permit

41. 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, 6.3.2 and 6.3.3] Federally Enforceable Through Title V Permit

42. 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, 6.3.4] Federally Enforceable Through Title V Permit

43. 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, 6.3.4] Federally Enforceable Through Title V Permit

44. 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, 6.3.5] Federally Enforceable Through Title V Permit

45. The operator 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, 6.6] Federally Enforceable Through Title V Permit

46. 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, 6.7] Federally Enforceable Through Title V Permit

47. 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, 6.8] Federally Enforceable Through Title V Permit

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48. 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, 6.9.1] Federally Enforceable Through Title V Permit

49. 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, 6.9.2] Federally Enforceable Through Title V Permit

50. 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, 6.9.3] Federally Enforceable Through Title V Permit

51. 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, 6.9.4] Federally Enforceable Through Title V Permit

52. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

53. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

54. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

55. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.1.1, and 5.1.2] Federally Enforceable Through Title V Permit

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56. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit

57. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit

58. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

59. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.4.1 & 5.4.2] Federally Enforceable Through Title V Permit

60. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

61. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit

62. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

63. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit

64. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit

65. Permittee shall inspect all unsafe-to-monitor components during each turmponenaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit

66. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit

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67. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit

68. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

69. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

70. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.5.6] Federally Enforceable Through Title V Permit

71. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

72. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

73. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

74. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

75. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

76. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

77. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

78. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

79. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

80. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

81. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

82. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

83. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

84. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

85. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-118-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 628 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. {520} The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. Permit holder shall maintain updated well roster readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Except for when casing vents or downstream valves are closed; noncondensible gas shall be piped to one or more of the following steam generators for incineration: S-1128-36; S-1128-48 or to tanks equipped with an operating vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Casing vapor collection system shall be equipped with vapor flow rate indicator/recorder downstream of condensible recovery system measuring total flow rate. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Water/VOC condensate from all vapor recovery systems shall be pumped to condensate collection tank or field gathering system. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Vapors shall not be vented to the atmosphere if VOC combustion source is inoperative. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Maximum fugitive VOC emission rate from the well head casing vent vapor collection system shall not exceed 1,508.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201]
11. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201]
12. Permittee shall maintain daily records of uncondensed casing vapor flow rate and make such records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

13. Permittee shall submit current well roster to the District annually within 60 days prior to permit anniversary. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Noncondensible sulfur compounds content shall not exceed 2,000 ppmv unless steam generators incinerating vapors are connected to flue gas scrubber if required to maintain compliance with sulfur emission limit. [District NSR Rule] Federally Enforceable Through Title V Permit

15. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

16. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

17. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

18. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

19. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

20. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

21. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit

23. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

24. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

25. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

26. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

27. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

28. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

29. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

30. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

31. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

32. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

33. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

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34. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

35. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

36. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

37. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

38. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

39. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

40. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

41. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

42. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

43. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

44. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

45. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

46. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

47. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

48. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-125-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 113 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, VAPOR COMPRESSORS, AND VAPOR PIPING TO STEAM GENERATORS S-1128-15, S-1128-18, AND VAPOR PIPING TIED INTO VAPOR RECOVERY LINE FROM SYSTEM LISTED UNDER PERMIT S-1128-617

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. VOC content of hydrocarbons in gas processed shall not exceed 37% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permit holder shall maintain updated well roster readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Water/VOC condensate from all vapor recovery systems shall be pumped to condensate collection tank or field gathering system. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Vapors shall not be vented to the atmosphere if VOC combustion source is inoperative. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Maximum fugitive VOC emission rate from the well head casing vent vapor collection system shall not exceed 170.6 lb/day, as calculated according to District Policy SSP 2015 Procedures for Quantifying Fugitive VOC Emissions At Petroleum and SOCMI Facilities. [District Rule 2201]
8. Permittee shall maintain an accurate fugitive component count and resultant emissions calculated using emission factors from EPA Publication 453/R-95-017 Protocol for Equipment Leak Emission Estimates Table 2-4 Oil and Gas Production Operations Average Emission Factors (kg/hr/source). [District Rule 2201]
9. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201]
10. Except for when casing vents or downstream valves are closed; noncondensible gas shall be piped to one or more of the following steam generators for incineration: S-1128-15; S-1128-18 or to tanks equipped with an operating vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

12. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit

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, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

14. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

15. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

16. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

17. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

18. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

20. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

21. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

22. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

23. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

24. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

25. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

26. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

27. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

28. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

29. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

30. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

31. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

33. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

34. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

35. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

36. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

37. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

38. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

39. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

40. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

41. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

42. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

43. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

44. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-128-17 **EXPIRATION DATE:** 02/28/2006

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SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-31X SERVING 60 STEAM-ENHANCED WELLS, INCLUDING HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S), VAPOR COMPRESSOR(S), AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S)

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. The operation includes piping from pipeline vent pots 4, 5, and 6, heat exchanger(s), gas/liquid separator(s), gas/liquid separator S-1128-950, vapor compressor(s), and gas piping to either TEOR operation S-1128-116, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
4. VOC emission rate shall not exceed 165.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit a copy of DOGGR approval for each disposal well used for Rule 4401 compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401] Federally Enforceable Through Title V Permit
8. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401] Federally Enforceable Through Title V Permit
9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

11. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

12. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401] Federally Enforceable Through Title V Permit

13. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

15. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401] Federally Enforceable Through Title V Permit

16. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

17. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401] Federally Enforceable Through Title V Permit

18. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit

20. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit

21. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit

22. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

23. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit

25. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of 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

26. 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

27. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401] Federally Enforceable Through Title V Permit

28. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit

29. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401] Federally Enforceable Through Title V Permit

30. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401] Federally Enforceable Through Title V Permit

31. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit

33. 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

34. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit

35. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

36. 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

37. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit

38. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

39. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

40. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401] Federally Enforceable Through Title V Permit

41. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with an operating vapor control system or if the wells are idle. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. {1667} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {1668} Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. {1311} The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-130-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
TEOR OPERATION WVVC SYSTEM CC-36W #2 SERVING 146 STEAM-ENHANCED WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED SG'S, DOGGR APPROVED DISPOSAL WELL(S), OR 5 AUTOMATIC WELL TEST VESSELS - CYMRIC

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PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. The operation includes piping from pipeline vent pots 2 and 3 to casing gas collection line, vapor piping from 5 automatic well test vessels (AWTs) in Sec 36, T29S, R21E (2 at GS#2, 1 at GS#3 and 2 at GS#4), diverter valve piping from TEOR #CC-1Y (S-1128-385) discharge line (tying S-1128-385 to S-1128-130), heat exchanger(s), gas/liquid separator(s), vapor compressor(s), gas volume flow rate and temperature indicators, and gas piping to either TEOR permit S-1128-116 collection system, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
4. S-1128-130 TEOR gas volume shall not exceed 1.5 MMscf/day and VOC content shall not exceed 4% by volume. [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emission rate shall not exceed 301.4 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain an accurate daily record of TEOR gas volume. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401] Federally Enforceable Through Title V Permit
9. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401] Federally Enforceable Through Title V Permit
10. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

12. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

13. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401] Federally Enforceable Through Title V Permit

14. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

16. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401] Federally Enforceable Through Title V Permit

17. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

18. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401] Federally Enforceable Through Title V Permit

19. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit

21. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit

22. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit

23. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

24. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit

26. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of 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

27. 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

28. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401] Federally Enforceable Through Title V Permit

29. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit

30. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401] Federally Enforceable Through Title V Permit

31. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401] Federally Enforceable Through Title V Permit

32. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit

34. 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

35. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit

36. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit

39. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

40. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

41. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401] Federally Enforceable Through Title V Permit

42. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with an operating vapor control system or if the wells are idle. [District Rule 4401] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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43. {1667} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. {1668} Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

45. {1311} The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-144-10 **EXPIRATION DATE:** 02/28/2006

SECTION: 05 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-5Z/6Z SERVING 33 STEAM-ENHANCED WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, AND PIPING TO SULFEROX PLANT (S-1128-116), SCRUBBED SG'S OR DOGGR APPROVED DISPOSAL WELL(S) - CYMRIC

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PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. {520} The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
4. The operation includes heat exchanger(s), gas/liquid separator(s), vapor compressor(s), and gas piping to either TEOR operation S-1128-116, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34 or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
5. VOC emissions shall not exceed 103.6 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401] Federally Enforceable Through Title V Permit
8. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401] Federally Enforceable Through Title V Permit
9. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

11. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

12. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401] Federally Enforceable Through Title V Permit

13. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit

14. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

15. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401] Federally Enforceable Through Title V Permit

16. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

17. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401] Federally Enforceable Through Title V Permit

18. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit

20. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit

21. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit

22. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

23. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit

24. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit

25. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of 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

26. 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

27. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401] Federally Enforceable Through Title V Permit

28. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit

29. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401] Federally Enforceable Through Title V Permit

30. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401] Federally Enforceable Through Title V Permit

31. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

32. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit

33. 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

34. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit

35. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

36. 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

37. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit

38. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

39. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

40. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401] Federally Enforceable Through Title V Permit

41. Well casing vents or downstream valves may be closed if wells are producing to tanks equipped with an operating vapor control system or if the wells are idle. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. {1667} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {1668} Compliance with permit conditions in the Title V permit shall be deemed in compliance with SJVUAPCD Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. {1311} The requirements of SJVUAPCD Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-154-24 **EXPIRATION DATE:** 02/28/2006

SECTION: 08 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL/PRODUCED GAS FIRED STEAM GENERATOR (CUSA ID #14) WITH NORTH AMERICAN 4231 G-LE MAGNA FLAME LOW NOX BURNER AND FGR (APPROVED FOR VARIOUS SPECIFIED LOCATIONS)

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain 0.07 mile of paved asphalt roadway per District "Roadway Maintenance Requirements" guideline. Roadway shall be part of the 4.97 miles of roadway within the Cymric Field, Sections 25, 35 and 36, T29S/R21E, Section 31, T29S/R22E and Section 6, T30S/R22E, designated by Chevron and identified on the map submitted for Project 1000959. [District NSR Rule] Federally Enforceable Through Title V Permit
2. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
3. The sulfur content of fuel combusted shall not exceed 1.16 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
5. Steam generator shall be equipped with fuel gas (natural gas) and supplemental gas (produced gas) volumetric flow rate indicators. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall measure and record the volume of fuel gas (natural gas) and supplemental gas (produced gas) burned in the steam generator on a daily basis. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Permittee shall measure and record fuel gas (natural gas) and supplemental gas (produced gas) sulfur contents at least once per month. [District NSR Rule] Federally Enforceable Through Title V Permit
8. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2, 4306, and 4320] Federally Enforceable Through Title V Permit

11. Emissions from the steam generator shall not exceed any of the following limits: 0.0033 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

12. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

13. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

14. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

16. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

17. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

26. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

33. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

35. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

36. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

37. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

38. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

39. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

40. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

41. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. {534} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), 110 (Madera), 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

43. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

44. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-159-17 **EXPIRATION DATE:** 02/28/2006

SECTION: 18 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH FGR (CUSA ID# 18-A)

PERMIT UNIT REQUIREMENTS

1. This equipment is approved to be operated at the following locations: Sec. 18, T30S, R22E and SE/4 of Sec. 8, T30S, R22E. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District NSR Rule] Federally Enforceable Through Title V Permit
3. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. {2417} Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. The sulfur content of fuel combusted shall not exceed 1.0 grains-S per 100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
6. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
7. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
8. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.014 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods, NOx emissions from the steam generator shall not exceed 15 ppmvd @ 3% O2 or 0.018 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit
11. Except during start-up and shutdown periods, CO emission from the steam generator shall not exceed 29 ppmvd @ 3% O2 or 0.021 lb/MMBtu. [District NSR Rule and Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

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12. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

13. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,855 lb-NOx/yr, 31.5 lb-CO/day, and 11,498 lb-CO/yr. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22 and 4320] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

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22. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit

23. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

24. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

26. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit

27. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5, and 4320] Federally Enforceable Through Title V Permit

28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

30. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

32. All units in a group for which representative units are source tested for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

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33. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, 4306, 6.3.2, and 4320] Federally Enforceable Through Title V Permit

34. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit

37. 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

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

39. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. {535} The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-160-6 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 16 STEAM DRIVE WELLS AND 18 CYCLIC WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. {1296} All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
3. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
4. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
5. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
6. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

8. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

9. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

10. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit

11. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

12. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

13. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

14. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

15. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

16. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

17. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

19. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

20. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

21. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

22. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

23. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

24. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

25. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

26. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

27. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

28. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

30. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

31. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

32. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

33. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

34. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

35. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

36. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-161-9

EXPIRATION DATE: 02/28/2006

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SECTION: 08 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 65 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. Final vapor condenser shall utilize exhaust gas temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Condensate collection vessel shall be equipped with high efficiency mist eliminator. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Mist eliminator shall be maintained in optimum operating condition. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Condensate shall be disposed of in manner preventing VOC emissions to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
7. VOC emission rate shall not exceed 214.9 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
8. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
9. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
10. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

12. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

13. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

14. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

15. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit

16. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

17. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

18. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

19. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

21. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

22. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

23. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

24. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

25. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

26. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

27. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

28. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

29. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

30. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

31. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

32. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

33. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

34. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

35. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

36. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

37. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

38. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

39. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

40. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

41. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-162-6 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY OPERATION WELL VENT VAPOR CONTROL SYSTEM SERVING 40 STEAM DRIVE WELLS, INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATOR, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO AUTHORIZED DISPOSAL/INCINERATION DEVICES

PERMIT UNIT REQUIREMENTS

1. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
2. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
3. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
4. The operation shall be equipped with 2 heat exchangers, 1gas liquid separator, 1 vapor compressor, and compressed vapor piping to authorized disposal/incineration devices. [District NSR Rule] Federally Enforceable Through Title V Permit
5. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
6. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
7. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

9. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

10. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

11. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

12. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit

13. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

14. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

15. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

16. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

17. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

18. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

19. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

20. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

21. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

22. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

23. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

24. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

25. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

26. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

27. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

28. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

29. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

31. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

32. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

33. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

34. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

35. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

36. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

37. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

38. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-183-11 **EXPIRATION DATE:** 02/28/2006

SECTION: 02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
3,300 BBL FIXED ROOF PETROLEUM WASH TANK #T-1 WITH VAPOR CONTROL SYSTEM CONSISTING OF KNOCKOUT VESSEL(S), HEAT EXCHANGER(S), GAS/LIQUID SEPARATOR(S) AND VAPOR COMPRESSOR(S)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rules 1070, 2520, 9.4.2, and 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

7. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

8. 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

9. 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

10. 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

11. The tank shall be equipped with a vapor control system consisting of a closed system that collects all VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in District Rule 4623 Section 6.4.7. [District NSR Rule] Federally Enforceable Through Title V Permit

12. The operator shall ensure that the vapor control system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. {979} Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 4623, 6.2.4] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. Tank vapor control system shall include a gas blanketing line from field fuel gas line including one gas pressure regulator set at less than 15 psig and one pressure control valve regulated by sensing line set to open gas supply valve at 0.4 in H20. [District NSR Rule] Federally Enforceable Through Title V Permit

28. Tank vapor control system shall include a vapor recovery line including one pressure control valve regulated by tank pressure sensing line set to open at pressures of 1.5 in H2O, and piping from vapor recovery line to air cooled heat exchanger. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor piping from vapor collection system to T.E.O.R. operation vapor collection piping shall be equipped with check valve to prevent vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

30. All tank roof vents, gauge hatches, and breather valves shall be installed and maintained at minimum release pressure of 0.125 psig and vacuum of 0.025 psig. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. The vapor control system shall collect vapors from tanks S-1128-230, -231, -232, -278, -605, -608 and -609, and shall send the compressed vapors to steam generators S-1128-15 and S-1128-18. [District NSR Rule] Federally Enforceable Through Title V Permit

32. If VOC combustion source is inoperative, tank vapor shall be routed to T.E.O.R. casing collection system S-1128-125. [District NSR Rule] Federally Enforceable Through Title V Permit

33. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

34. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

35. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the procedure used to vent tank vapors prior to opening, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

36. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

37. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

38. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-222-11 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
5000 BBL FREE WATER KNOCK-OUT TANK #T-1 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-223, 224, 225, 226, 227, 228, 229, 701, 703, & 923, INCLUDING 561,000 BTU/HR HEAT EXCHANGER, KNOCKOUT VESSEL, COMPRESSOR, AND COMPRESSED VAPOR PIPING TO S-1128-36 AND 48

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-223-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
5000 BBL FREE WATER KNOCK-OUT TANK #T-2 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-222-1

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-224-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
10,000 BBL WASH TANK #T-3 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-222-1

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-225-8 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
10,000 BBL WASH TANK #T-4 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-222-1

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-226-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2000 BBL LACT TANK #T-5 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-222-1

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-227-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2000 BBL REJECT TANK #T-6 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-222-1

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-228-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
1000 BBL REJECT TANK #T-7 WITH VAPOR CONTROL SYSTEM SYSTEM SHARED W/S-1128-222-1

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-229-7 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
WEMCO AIR FLOATATION UNIT #W-1 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-222-1

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. The tank shall be equipped with a vapor control system consisting of a closed system that collects VOCs from the storage tank and a VOC control device. The vapor control system shall be APCO-approved. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 99% by weight as determined by the test method(s) specified in District Rule 4623. [District Rules 2201] Federally Enforceable Through Title V Permit

14. The operator shall ensure that the vapor recovery system is functional and is operating as designed, except during periods of tank cleaning and maintenance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

15. Maximum VOC content of vapor in the tank vapor recovery system shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof, readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. A leak is defined as a reading of methane on a portable hydrocarbon detection instrument (calibrated with methane) in excess of 10,000 ppm when measured pursuant to EPA Method 21. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Except for components that are part of a critical process unit, as defined by this permit, leaking components shall be repaired within 15 days of discovery. The APCO may grant a 10 calendar day extension if the operator demonstrates that the necessary and sufficient actions have and are being taken to correct the leak. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

22. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

23. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Operator shall conduct quarterly sampling from the 26C OCP tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. For 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of tanks S-1128-222, '223, '224, '225, '226, '227, '228, '229, '701, '703 and '923. [District Rule 2201] Federally Enforceable Through Title V Permit

25. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit

26. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, or 25a. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall be equipped with stored liquid temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Vapor space pressure in tanks shall be controlled by fuel gas blanketing system. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Only natural gas purchased from PUC-regulated utility or equivalent shall be used as makeup gas. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Pressure control valves shall be set to regulate gas blanket feed between 0.4 in. w.c. vacuum and 1.5 in. w.c. pressure. [District NSR Rule] Federally Enforceable Through Title V Permit

32. Crude oil introduced into the tank shall be blended prior to introduction into tank and shall have an API gravity of 20 degrees or less as determined by ASTM 287. [District Rule 2201] Federally Enforceable Through Title V Permit

33. All noncondensible vapors collected shall be routed to steam generators S-1128-36, and S-1128-48. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-230-4 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
3300 BBL FIXED ROOF PETROLEUM WASH TANK WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-183-2

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 NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-231-4 **EXPIRATION DATE:** 02/28/2006

EQUIPMENT DESCRIPTION:
2000 BBL FIXED ROOF LACT TANK WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-183-2

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-232-4 **EXPIRATION DATE:** 02/28/2006

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EQUIPMENT DESCRIPTION:
2000 BBL FIXED ROOF LACT TANK WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-183-2

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 NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-248-33 **EXPIRATION DATE:** 02/28/2006

DRAFT

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF CRUDE OIL TANK T-24 W VAPOR CONTROL SYSTEM SHARED W/23 PERMIT UNITS; INCLUDING HEAT EXCHANGER(S), G/L SEPARATOR(S), GAS COMPRESSORS, & GAS PIPING TO SULFEROX PLT (S-1128-116), SCRUBBED STEAM GENERATORS OR DOGGR APPROVED DISPOSAL WELLS

PERMIT UNIT REQUIREMENTS

1. The following tanks shall be connected to vapor control system: S-1128-248, -250, -262, -263, -297, -298, -400, -401, -402, -404, -405, -406, -407, -411, -412, -935, -936, -938, -940, and -958. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623] Federally Enforceable Through Title V Permit
3. The tank shall be equipped with a vapor control system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor control system shall be APCO-approved and maintained in gas-tight condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 99% by weight as determined by the test method specified in Section 6.4.7. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit
4. Any tank gauging or sampling device on a tank vented to the vapor control system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
5. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
6. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit
7. {969} All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit

9. {970} A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. {973} Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. {974} If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

15. The efficiency of any VOC destruction device shall be measured by USEPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

16. The operator shall ensure that the vapor control system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. {941} The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Tank vapor control system includes heat exchanger(s), gas/liquid separator(s), gas eliminator, gas compressor(s), condensate pump(s), and gas piping to either TEOR permit S-1128-116 collection piping, scrubbed steam generators S-1128-3, -24, -25, -26, and -29 through -34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit

19. VOC content of total hydrocarbons in gas processed by the vapor control system, upstream of compressors, shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Fugitive VOC emission rate, calculated using the Oil and Gas Production Operations Average Emission Factors, U.S. EPA Protocol for Equipment Leak Emission Estimates, Table 2-4 (EPA-453/R-95-017) November 1995 from the total number of vapor components associated with tank and vapor control system shall not exceed 107.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

21. Fugitive VOC limit listed above does not include components handling produced fluids with an API gravity less than 30 degrees, or components in water/oil service (condensate) with a water content equal to or greater than 50% by weight, or components handling fluid streams with a VOC content of 10% or less by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Records of VOC content of the hydrocarbons in the gas processed by vapor control system shall be kept at the facility and made readily available for compliance inspection upon request for a period of 5 years. [District Rule 1070] Federally Enforceable Through Title V Permit

23. VOC content of hydrocarbons in gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

24. This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit

25. Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit

26. Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit

27. Permittee shall notify the District Compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

28. Prior to opening the tank to allow tank cleaning one of the following procedures must be followed: 1) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained, 2) displace vapors floating the oil pad off with water such that 90% of the tank volume is displaced, 3) vent the tank to the vapor control system until the vapor concentration is less than 10% of the lower explosive limit (LEL) or 5,000 ppmv whichever is less; or 4) vent the tank to the vapor control system for a length of time determined by the following relationship: $t = 2.3\ V / Q$, where t = time, V = tank volume (cubic feet), and Q= flow rate to the vapor control system as determined using appropriate engineering calculations. [District Rule 2080] Federally Enforceable Through Title V Permit

29. The tank shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

30. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

31. Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

32. Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

33. Permittee shall maintain records of each period of cleaning and maintenance when the tank is disconnected or isolated from the vapor control system. Records shall include the date that tank cleaning was initiated, the date tank cleaning was completed, the method of tank cleaning used, and a description of internal and external tank repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-250-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED ROOF STORAGE TANK (T-41) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-262-10

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-35) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-263-10 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
500 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-36) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-278-6 **EXPIRATION DATE:** 02/28/2006

SECTION: NW02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
1,000 BBL FIXED ROOF SUMP REPLACEMENT TANK #T-154 WITH PRESSURE/VACUUM RELIEF VALVE

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-297-4 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
WEMCO M-1 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

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PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

9. 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

10. 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

11. 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

12. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Emissions from this tank and associated tank vapor recovery system shall not exceed the amount specified on S-1128-248. [District Rule 2201] Federally Enforceable Through Title V Permit

15. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 2201] Federally Enforceable Through Title V Permit

16. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

17. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit

18. {969} All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. {970} A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. {972} Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. {973} Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

23. {974} If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. VOC content of hydrocarbons in TEOR gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

27. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

28. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-298-4 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
WEMCO M-2 WITH VAPOR CONTROL SYSTEM SHARED WITH S-1128-248 - CYMRIC 31X OCP

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PERMIT UNIT REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
4. True vapor pressure (TVP) of stored liquids shall be less than 0.5 psia. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Emissions from this tank and associated tank vapor recovery system shall not exceed the amount specified on S-1128-248. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District Rules 2201] Federally Enforceable Through Title V Permit
7. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 2201] Federally Enforceable Through Title V Permit
9. This permit authorizes vessel cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
10. Permittee shall conduct vessel cleaning and maintenance operations in accordance with District approved procedure as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
11. Vessel may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2010] Federally Enforceable Through Title V Permit
12. Permittee shall notify the District compliance division at least 24 hours before tank cleaning and vapor control system disconnection and within 72 hours after restoring crude oil flow to the tank. [District Rule 2080] Federally Enforceable Through Title V Permit

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13. During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit

14. Prior to opening the vessel to allow vessel cleaning, one of the following procedures must be followed: 1) Exhaust VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable liquid until 90 percent or more of the maximum operating level of the vessel is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the vessel vapor space to an APCO-approved vapor recovery system by filling the vessel with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the vessel capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; or 4) For oil/water separation vessels, the operator may degas the vessel vapor space by restricting the outflow of water and floating off the oil pad, such that at least 90 percent of the vessel volume is displaced. [District Rule 2080] Federally Enforceable Through Title V Permit

15. The vessel shall be cleaned using one of the following methods: water, hot water, solvents with an initial boiling point of greater than 302 F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams VOC per liter or less. The vessel sediment shall be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit

16. Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit

17. Prior to reintroducing crude oil/water to the vessel, the vessel shall be filled to the maximum possible level with water, the vessel vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

18. Within 48 hours after refilling the vessel with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular vessel maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit

19. Permittee shall maintain records of each period of cleaning and maintenance when the vessel is disconnected or isolated from the vapor control system. Records shall include the date that vessel cleaning was initiated, the date vessel cleaning was completed, the procedure used to vent vessel vapors prior to opening, the method of vessel cleaning used, and a description of internal and external vessel repairs and maintenance performed. Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 2080] Federally Enforceable Through Title V Permit

20. {969} All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. {970} A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. {971} An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. {972} Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. {973} Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 25 at least annually. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

25. {974} If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

26. {975} Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

27. The operator shall keep accurate records of types, storage temperature and the true vapor pressure of liquids stored. Such records shall be retained for a minimum of five years and made available by the APCO for inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Permittee shall conduct True Vapor Pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rules 2201 and 4623] Federally Enforceable Through Title V Permit

29. VOC content of hydrocarbons in TEOR gas processed by vapor control system shall be determined using ASTM Method E168, E169, or E260 as applicable, or equivalent test method with prior District approval measured upon startup and annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

30. For crude oil with an API gravity of 20 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit

31. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District Rule 2201] Federally Enforceable Through Title V Permit

32. The efficiency of any VOC destruction device shall be measured by EPA Method 25, 25a, or 25b. [District Rule 2201] Federally Enforceable Through Title V Permit

33. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

34. {941} The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-302-4 **EXPIRATION DATE:** 02/28/2006

SECTION: SE26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
8.4 MMBTU/HR NATURAL GAS-FIRED BOILER #3 WITH A CLEAVER BROOKS MODEL ICH84GX30S LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM

PERMIT UNIT REQUIREMENTS

1. Units S-1128-7, -8, and -302 shall be equipped with a master fuel flow meter. Annual fuel use for each unit shall be calculated based on hours of operation of each unit and total fuel use from master meter. [District Rules 4306 and NSR] Federally Enforceable Through Title V Permit
2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407; District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rules NSR and 4406] Federally Enforceable Through Title V Permit

9. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit

12. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: SOx (as SO2): 0.00285 lb/MMBtu; PM10: 0.0075 lb/MMBtu; or VOC: 0.0054 lb/MMBtu. [District Rules 2201, 4201, 3.1, 4301, 5.2, 4406 and 4801] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, or CO: 0.0824 lb/MMBtu or 112 ppmvd @ 3% O2. [District Rules 2201, 2520, 9.3.2, 4201, 3.1, 4301, 5.2, 5.3, and 5.5, 4305 and 4306] Federally Enforceable Through Title V Permit

15. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rule 4306] Federally Enforceable Through Title V Permit

16. During start-up and shutdown periods emissions from the boiler shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.0824 lb-CO/MMBtu. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit

17. Maximum emissions from the boiler, including start-up and shutdown, shall not exceed any of the following limits: 19.8 lb-NOx/day, 1080 lb-NOx/yr, 16.6 lb-CO/day, and 2472 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit

19. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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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 analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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 performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

28. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

29. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. {1678} This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

42. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-303-5 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
5.23 MMBTU/HR NATURAL GAS FIRED CLEAVER-BROOKS BOILER #F-2 WITH A CLEAVER BROOKS MODEL CB-700X-125-15 BURNER AND FGR

PERMIT UNIT REQUIREMENTS

1. This unit shall be equipped with a totalizing, non-resettable fuel flow meter. [District Rule 4306 and NSR] Federally Enforceable Through Title V Permit
2. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 2201and 1081] Federally Enforceable Through Title V Permit
3. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
4. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6, 6A, 6B, 6C; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months, however annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [Kern County Rule 407; District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

8. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

10. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit

11. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3 and Kern County Rules 404 and 408] Federally Enforceable Through Title V Permit

13. Emission rates shall not exceed any of the following: SOX (as SO2): 0.00285 lb/MMBtu; PM10: 0.0075 lb/MMBtu; or VOC: 0.0054 lb/MMBtu. [District Rules 2201, 4201, 3.1, 4301, 5.2, and 4801] Federally Enforceable Through Title V Permit

14. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, or CO: 0.0824 lb/MMBtu or 112 ppmvd @ 3% O2. [District Rules 2201, 2520, 9.3.2, 4201, 3.1, 4301, 5.2, 5.3, and 5.5, 4305 and 4306] Federally Enforceable Through Title V Permit

15. Total heat input to this unit shall be less than 30 billion Btu per calendar year. [District Rules 2201 and 4306] Federally Enforceable Through Title V Permit

16. During start-up and shutdown periods emissions from the boiler shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.0824 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Maximum emissions from the boiler, including start-up and shutdown, shall not exceed any of the following limits: 12.3 lb-NOx/day, 1,080 lb-NOx/yr, 10.3 lb-CO/day, and 2,472 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit

19. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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 analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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 performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

25. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

27. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

28. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

29. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306] Federally Enforceable Through Title V Permit

31. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1081 (Amended December 16, 1993), 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: 402 (Madera), 404 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 405 (Madera), 408 (Fresno, Kern, Tulare, Kings, Stanislaus, Merced, and San Joaquin), 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin), and 408.2 (Merced). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

40. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, the requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

41. {1678} This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-305-3 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
375 BHP CATERPILLAR MODEL 3406DT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.9.4, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
5. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.9.2] Federally Enforceable Through Title V Permit
7. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.9.3] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.9 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4702, 6.2.3 and 2520, 9.4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

14. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

15. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-306-4 **EXPIRATION DATE:** 02/28/2006

SECTION: NE01 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
600 BHP CUMMINS MODEL KTA1965T DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.9.4, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
5. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.9.2] Federally Enforceable Through Title V Permit
7. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.9.3] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.9 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4702, 6.2.3 and 2520, 9.4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

14. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

15. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-307-3 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
375 BHP CATERPILLAR MODEL 3406DT DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.9.4, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
5. This engine shall not be used to produce power for the electrical distribution system, as part of a voluntary utility demand reduction program, or for an interruptible power contract. [District Rule 4702, 3.15] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.9.2] Federally Enforceable Through Title V Permit
7. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.9.3] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.9 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rules 4702, 6.2.3 and 2520, 9.4.2, 17 CCR 93115, and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 402 (Madera) and 404 (Fresno, Merced, Kern, Kings, San Joaquin, Stanislaus, Tulare). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

13. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

14. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

15. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests, opacity and visible emissions observations and required maintenance performed on the air pollution control and monitoring equipment. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

19. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule 1070 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-335-6 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-6

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule]
5. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4306]
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-336-6 **EXPIRATION DATE:** 02/28/2006

SECTION: 25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27,500,000 BTU/HR NATURAL GAS FIRED STEAM GENERATOR, SN 22-7

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule]
5. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4306]
6. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-337-10 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
DORMANT 27.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #22-5-26C WITH LOW PRESSURE FUEL INDUCED RECIRCULATION (LPFIR) - TAFT (GROUP II)

PERMIT UNIT REQUIREMENTS

1. No modification(s) to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4306] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rules 4305 and 4306 and all other applicable District regulations. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081]
5. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2]
6. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3]
8. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1]
9. Upon recommencing operation, when complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. Upon recommencing operation, when complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2]

11. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3246, D 4084, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2]

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2; 4305, 6.2.1; and 4351, 6.2.1]

13. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.3.2]

14. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2, 5.3, and 5.5 and 2520, 9.3.2]

15. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District NSR Rule]

18. Emission rates shall not exceed NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, and CO: 0.035 lb/MMBtu or 48 ppmv @ 3% O2. [District Rules 4305, 4306 and NSR]

19. Upon recommencing operation, the stack concentration of NOx (as NO2), CO, and O2 shall be measured at least on a monthly basis using District approved portable analyzers. [District Rules 2520, 9.3.2 and 4305]

20. Upon recommencing operation, the permittee shall maintain records of the date and time of NOx, CO, and O2 measurements, the measured NO2 and CO concentrations corrected to 3% O2, and the O2 concentration. The records shall also include a description of any corrective action taken to maintain the emissions in the acceptable range. These records shall be retained at the facility for a period of no less than five years and shall be made readily available for District inspection upon request. [District Rules 2520, 9.3.2 and 4305]

21. If the NOx or CO concentrations, as measured by the portable analyzer, exceed the allowable emission rate, the permittee shall notify the District and take corrective action as soon as possible but no longer than one (1) hour after detection. If the portable analyzer readings continue to exceed for more than one hour the allowable emission rate, the permittee shall conduct an emissions test within 60 days, utilizing District-approved test methods, to demonstrate compliance with the applicable emission limits. [District Rules 2520, 9.3.2 and 4305]

22. Upon recommencing operation, source testing for NOx and CO emissions shall be conducted not less than once every 12 months, except as provided below. [District Rules 2520, 9.3.2 and 4305]

23. Upon recommencing operation, source testing for NOx and CO emissions shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 2520, 9.3.2 and 4305]

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. Upon recommencing operation, if permittee fails any compliance demonstration for NOx and CO emissions when testing not less than once every 36 months, source testing for NOx and CO emissions shall be conducted not less than once every 12 months. [District Rules 2520, 9.3.2 and 4305]

25. The following conditions must be met for representative units to be used to test for NOx and CO emissions for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of permitted value and vary 25% or less from the average of all runs, 2) all units in the group are similar in terms of heat input, make and series, operational conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) the selection of the representative units is approved by the District prior to testing. [District Rule 2520, 9.3.2]

26. All units in a group for which representative units are annually source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative units. [District Rule 2520, 9.3.2]

27. Upon recommencing operation, an operating log shall be maintained for each unit of the group. The log shall include, on a monthly basis, the total hours of operation, type and quantity of fuel used, and preventative and corrective maintenance and modifications performed. [District Rule 2520, 9.3.2]

28. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated such that in three years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2]

29. Should any of the representative units exceed the required emission limits of this permit, each of the unit in the group shall conduct emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rule 2520, 9.3.2]

30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and stack gas moisture content - EPA Method 4. [District Rules 1081, 4305]

31. Stack gas velocities for source test purposes shall be determined using EPA Method 2. [District Rule 1081]

32. Emissions from this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of three 30-minute test runs for NOx and CO. [District Rules 2520, 9.3.2 and 4305]

33. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells. [District Rule 4401]

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-360-9 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
24 MMBTU/HR BOILER C-139 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC

PERMIT UNIT REQUIREMENTS

1. {521} Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
5. {524} When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
6. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

9. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit

10. Operation of this unit shall not exceed 30 billion Btu per year. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, or CO: 0.035 lb/MMBtu or 48 ppmvd @ 3% O2, PM10: 0.0076 lb/MMBtu, SOx (as SO2): 0.00285 lb/MMBtu, or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

12. Emissions shall not exceed either of the following limits: 20.7 lb-NOx/day and 1,080 lb-NOx/year, or 20.2 lb-CO/day and 1,050 lb-CO/yr. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

13. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit

14. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

24. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 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, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

38. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-361-8 **EXPIRATION DATE:** 02/28/2006

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SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
24 MMBTU/HR BOILER C-140 WITH FLUE GAS RECIRCULATION (FGR) - CYMRIC

PERMIT UNIT REQUIREMENTS

1. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period (Kern County Rule 407). To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas; or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
2. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.4.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
3. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6 or 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
5. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by double GC performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

7. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 2520, 9.3.2 and 4306] Federally Enforceable Through Title V Permit

8. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

9. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

10. Operation of this unit shall not exceed 30 billion Btu per year. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

11. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.036 lb/MMBtu or 30 ppmvd @ 3% O2, or CO: 0.035 lb/MMBtu or 48 ppmvd @ 3% O2, PM10: 0.0076 lb/MMBtu, SOx (as SO2): 0.00285 lb/MMBtu, or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

12. Emissions shall not exceed either of the following limits: 20.7 lb-NOx/day and 1,080 lb-NOx/year, or 20.2 lb-CO/day and 1,050 lb-CO/yr. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit

13. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306] Federally Enforceable Through Title V Permit

14. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

15. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

16. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

17. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

19. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306] Federally Enforceable Through Title V Permit

20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

21. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306] Federally Enforceable Through Title V Permit

22. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3Aor ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 4305 and 4306] Federally Enforceable Through Title V Permit

24. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 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, 5.5.5 and 4306] Federally Enforceable Through Title V Permit

27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

28. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement). [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

29. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

30. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

31. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

32. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted, fuel sources, and all dates on which unit is fired on any non-certified fuel and record specific type of noncertified fuel used.. [District Rule 2520, 9.4.2 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

34. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the unit shall be utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1 and 4306] Federally Enforceable Through Title V Permit

36. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320] Federally Enforceable Through Title V Permit

37. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320] Federally Enforceable Through Title V Permit

38. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

39. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-366-15 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-1) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

42. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-367-14 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-2) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

42. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-368-14 **EXPIRATION DATE:** 02/28/2006

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SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-3) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

42. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-369-14 **EXPIRATION DATE:** 02/28/2006

SECTION: 26 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# CG-4) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.013 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.002 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1,164.1 lb-CO/day; 3.6 lb-SOx/day; 23.3 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 1,307 lb-SOx/year; 8,495 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-366, -367, -368 or -369) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-366, -367, -368, or -369), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

42. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-370-17 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-1) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE WITH A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on-PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
5. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
6. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-371-17 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-2) INCLUDING: SOLAR CENTAUR 37.6 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE WITH A PCL HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS)

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on-PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
5. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
6. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-372-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-3) INCLUDING 37.6 MMBTU/HR (NOMINAL RATING) SOLAR CENTAUR GAS TURBINE ENGINE WITH WATER INJECTION AND ONE HEAT RECOVERY STEAM GENERATOR WITH A 37 MMBTU/HR (NOMINAL RATING) DUCT BURNER WITH AMMONIA INJECTION, SELECTIVE CATALYTIC REDUCTION (SCR), AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) FOR NOX, CO AND O2

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on-PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
5. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
6. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-373-16 **EXPIRATION DATE:** 02/28/2006

SECTION: 36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 36W CG-4) INCLUDING 37.6 MMBTU/HR (NOMINAL RATING) SOLAR CENTAUR GAS TURBINE ENGINE WITH WATER INJECTION AND ONE HEAT RECOVERY STEAM GENERATOR WITH A 37 MMBTU/HR DUCT BURNER (NOMINAL RATING) WITH AMMONIA INJECTION, SELECTIVE CATALYTIC REDUCTION (SCR), AND A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) FOR NOX, CO AND O2

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PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. If the gas turbine system is fired on-PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
3. If the gas turbine system is fired on non-PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3031; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on non-PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
5. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
6. Operation shall include non-condensable gas inlet piping from District approved TEOR or tank vapor system. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system, when startup or shutdown or black start do not occur, shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.031 lb-PM10/MMBtu; 0.027 lb-VOC/MMBtu referenced as methane; and 0.046 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 65.6 lb-NOx/day referenced as NO2; 1164.1 lb-CO/day; 82.4 lb-SOx/day; 55.5 lb-PM10/day; 99.6 lb-VOC/day referenced as methane; and 50.9 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 21,566 lb-NOx/year; 69,019 lb-CO/year; 30,061 lb-SOx/year; 20,258 lb-PM10/year; 17,901 lb-VOC/year; 18,567 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions totals. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-370, -371, -372 or -373) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: 1) annual RATA testing of at least one gas turbine engine (S-1128-370, -371, -372, or -373), and rotate the unit tested so that all four units are tested over four years, 2) annual RAA testing for the three gas turbine engines for which the annual RATA testing is not performed, 3) if any of the gas turbine engines fail the RAA testing, they must have a RATA test within 60 days, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed for each gas turbine engine. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

35. Except during black start, each startup shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Each shutdown shall not exceed two hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

41. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

42. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

45. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-374-11 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
DORMANT 2.7 MW COGEN FACILITY (CUSA ID# 31X CG-1) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit
4. {777} Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b);60.332(a); Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
5. {778} Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf . [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. Total heat input to the turbine/duct burner system shall not exceed 1,870 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall not exceed a NOx emission rate of 42 ppmvd @ 15% O2, excluding thermal stabilization and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit
8. {780} Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Rule 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), Rule 110 (Madera), and Rule 108 (Kings)] Federally Enforceable Through Title V Permit
9. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM methods D 1072, D 3031, D 4084, D 3246, D 6228 or grab sample analysis by double GC for H2S and mercaptans. [Rules 1081and 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
10. {781} If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

11. HHV and LHV of the fuel shall be determined using ASTM D 3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

12. Nitrogen oxides (NOx) concentration from the gas turbine exhaust shall be determined using EPA Method 7E or 20, and oxygen (O2) concentration shall be determined using EPA Method 3, 3A, or 20. Carbon monoxide (CO) emissions shall be determined using EPA Test Methods 10 or 10B. EPA approved alternative test methods may also be used to address the source testing requirements of this permit. [District Rule 1081; District Rule 4703, 5.1,5.2, & 6.4; 40 CFR 60.335(a) and (b),(c)] Federally Enforceable Through Title V Permit

13. The operator shall provide source test information annually regarding the exhaust gas NOx, CO and O2 concentrations corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

14. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

15. {737} If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. {786} The operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

17. {787} Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

18. {741} The requirements of 40 CFR 72.6 (b) do not apply to this source because only non-Title IV sources can qualify to use the applicable template. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. {788} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. {789} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. {790} Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

22. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [District Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. {792} Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

24. {793} Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

25. {749} Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

26. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

27. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

28. Fuel gas shall have a sulfur content not exceeding 0.71 grain/100 scf, and shall otherwise be of PUC regulated quality. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Gas combusted shall be exclusively PUC regulated natural gas or natural gas documented to be of comparable sulfur quality. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to insure emission limitation compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Permittee shall keep accurate daily records of fuel source and fuel consumption, and quarterly fuel gas sulfur and nitrogen contents, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2520, 9.4.2 and NSR] Federally Enforceable Through Title V Permit

32. Permittee shall continuously monitor and record the water/fuel ratio to the turbine. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx emissions may be measured by use of water/fuel ratio and District approved correlation equation. [District NSR Rule] Federally Enforceable Through Title V Permit

34. If water injection system is inoperative, gas turbine engine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Except during periods of thermal stabilization or reduced load, CO emissions shall not exceed the following: with only the gas turbine engine firing, 86 ppmv at 15 % O2 and , with the gas turbine engine and duct burner both firing, 44 ppmv at 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

36. Thermal Stabilization period shall be defined as the startup or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District Rule 4703] Federally Enforceable Through Title V Permit

37. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed time periods of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

38. NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis, except during periods of thermal stabilization or reduced loads. [District Rule 4703, 5.1.2 and 7.2.1] Federally Enforceable Through Title V Permit

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39. Emission rates shall not exceed the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu and 150 ppmv @ 15% O2, NOx (as NO2): 0.150 lb/MMBtu and 200 ppmv @ 15% O2 and VOC: 0.026 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-375-11 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
DORMANT 2.7 MW COGEN FACILITY (CUSA ID# 31X CG-2) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STURTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4703] Federally Enforceable Through Title V Permit
3. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4703 and all other applicable District regulations. [District Rule 4703] Federally Enforceable Through Title V Permit
4. {777} Units shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333(a) & (b);60.332(a); Rule 404 (Madera), 406 (Fresno) and 407 (6 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
5. {778} Operator shall not discharge into the atmosphere combustion contaminants (PM) exceeding in concentration at the point of discharge, 0.1 gr/dscf. [District Rule 4201; Rule 402 (Madera) and 404 (all 7 remaining counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
6. Total heat input to the turbine/duct burner system shall not exceed 1,870 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operator shall not exceed a NOx emission rate of 42 ppmvd @ 15% O2, excluding thermal stabilization and reduced load periods. [40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit
8. {780} Operator shall be required to conform to the compliance testing procedures described in District Rule 1081. [District Rule 1081; Rule 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), Rule 110 (Madera), and Rule 108 (Kings)] Federally Enforceable Through Title V Permit
9. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM methods D 1072, D 3031, D 4084, D 3246, D 6228 or grab sample analysis by double GC for H2S and mercaptans. [Rules 1081and 40 CFR 60.335(d)] Federally Enforceable Through Title V Permit
10. {781} If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

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11. HHV and LHV of the fuel shall be determined using ASTM D 3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

12. Nitrogen oxides (NOx) concentration from the gas turbine exhaust shall be determined using EPA Method 7E or 20, and oxygen (O2) concentration shall be determined using EPA Method 3, 3A, or 20. Carbon monoxide (CO) emissions shall be determined using EPA Test Methods 10 or 10B. EPA approved alternative test methods may also be used to address the source testing requirements of this permit. [District Rule 1081; District Rule 4703, 5.1,5.2, & 6.4; 40 CFR 60.335(a) and (b),(c)] Federally Enforceable Through Title V Permit

13. The operator shall provide source test information annually regarding the exhaust gas NOx, CO and O2 concentrations corrected to 15% O2 (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit

14. Unit shall demonstrate compliance annually with NOx and CO emissions limits with the duct burner in operation and not in operation. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [40 CFR 60.335(b) and District Rule 4703, 6.3.2] Federally Enforceable Through Title V Permit

15. {737} If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. {786} The operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit

17. {787} Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332(a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

18. {741} The requirements of 40 CFR 72.6 (b) do not apply to this source because only non-Title IV sources can qualify to use the applicable template. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. {788} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 1081, 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404(Madera); 40 CFR 60.332(c), (d); 60.334 (b), and (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

20. {789} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: SJVUAPCD Rule 4703, 6.2.2; Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern and Stanislaus), and 110 (Madera); Rules 402 (Madera) and 404 (Fresno, Kern, Kings, San Joaquin, Merced, Stanislaus, Tulare); 40 CFR 60.332 (a) and (b); 60.333(a) and (b); 60.334 (a), (b), and (c)(1); 60.335 (a), (b), (c), and (e). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

21. {790} Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

22. Permittee shall install, operate and maintain in calibration a predictive emissions monitoring system which continuously measures and records the water-to-fuel ratio and which correlates the water-to-fuel ratio with the NOx concentration in the exhaust by using the method described in 40 CFR 60.335(c). [District Rule 4703 and 40 CFR 60.334] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. {792} Permittee shall submit to the APCO the information correlating the control system operating parameters to the associated measured NOx output. [District Rule 4703, 6.2.5] Federally Enforceable Through Title V Permit

24. {793} Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1] Federally Enforceable Through Title V Permit

25. {749} Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(c)(2)] Federally Enforceable Through Title V Permit

26. Permittee shall submit an excess NSPS emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form to the APCO semiannually, except when more frequent reporting is specifically required by an applicable subpart. All reports shall be postmarked by the 30th day of each calendar half (or quarter, as appropriate). [40 CFR 60.7(c)] Federally Enforceable Through Title V Permit

27. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the NOx emissions limit required by NSPS shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions. [40 CFR 60.334(c)] Federally Enforceable Through Title V Permit

28. Fuel gas shall have a sulfur content not exceeding 0.71 grain/100 scf, and shall otherwise be of PUC regulated quality. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Gas combusted shall be exclusively PUC regulated natural gas or natural gas documented to be of comparable sulfur quality. [District NSR Rule] Federally Enforceable Through Title V Permit

30. Gas turbine engine water injection rate shall be maintained such that water to fuel ratio is no less than that amount determined necessary to insure emission limitation compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

31. Permittee shall keep accurate daily records of fuel source and fuel consumption, and quarterly fuel gas sulfur and nitrogen contents, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2520, 9.4.2 and NSR] Federally Enforceable Through Title V Permit

32. Permittee shall continuously monitor and record the water/fuel ratio to the turbine. [District NSR Rule] Federally Enforceable Through Title V Permit

33. NOx emissions may be measured by use of water/fuel ratio and District approved correlation equation. [District NSR Rule] Federally Enforceable Through Title V Permit

34. If water injection system is inoperative, gas turbine engine shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit

35. Except during periods of thermal stabilization or reduced load, CO emissions shall not exceed the following: with only the gas turbine engine firing, 86 ppmv at 15 % O2 and , with the gas turbine engine and duct burner both firing, 44 ppmv at 15% O2. [District NSR Rule] Federally Enforceable Through Title V Permit

36. NOx emission rate shall not exceed 35 ppmv at 15% O2 on a 3 hour rolling average basis, except during periods of thermal stabilization or reduced loads. [District Rule 4703, 5.1.2 and 7.2.1] Federally Enforceable Through Title V Permit

37. Thermal Stabilization period shall be defined as the startup or shutdown time necessary to bring the heat recovery steam generator to proper temperature, not exceeding two hours. [District Rule 4703] Federally Enforceable Through Title V Permit

38. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart A 60.2, shall not exceed time periods of two hours and two hours, respectively, per occurrence. [District Rule 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

39. Emission rates shall not exceed the following: PM10: 0.012 lb/MMBtu, SOx (as SO2): 0.003 lb/MMBtu and 150 ppmv @ 15% O2, NOx (as NO2): 0.150 lb/MMBtu and 200 ppmv @ 15% O2 and VOC: 0.026 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-376-10 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 6Z CG-1) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) WITH AMMONIA INJECTION SYSTEM, A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.012 lb-PM10/MMBtu; 0.026 lb-VOC/MMBtu referenced as methane; and 0.003 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 67.8 lb-NOx/day referenced as NO2; 1,174.3 lb-CO/day; 5.6 lb-SOx/day; 22.4 lb-PM10/day; 99.8 lb-VOC/day referenced as methane; and 53.1 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 22,516 lb-NOx/year; 73,595 lb-CO/year; 2,047 lb-SOx/year; 8,189 lb-PM10/year; 17,999 lb-VOC/year; 19,339 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-376 or -377) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. NOx, CO and O2 concentrations from the gas turbine systems operating under permits S-1128-376 and S-1128-377 shall be monitored by a common CEMS. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: (1) perform annual RATA testing on at least one unit (S-1128-376 or S-1128-377), and rotate the unit tested so that each unit is tested over two years; (2) perform annual RAA testing for the unit for which the annual RATA is not performed, (3) if a unit fails RAA testing, RATA test must be conducted within 60 days on the failed unit, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed on each unit. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Except during black start, each startup shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Each shutdown shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

42. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-377-10 **EXPIRATION DATE:** 02/28/2006

SECTION: 6 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
2.7 MW COGEN FACILITY (CUSA ID# 6Z CG-2) INCLUDING: SOLAR CENTAUR 40.9 MMBTU/HR (NOMINAL RATING), WATER INJECTED, GAS TURBINE ENGINE AND STRUTHERS HEAT RECOVERY STEAM GENERATOR WITH 37 MMBTU/HR (NOMINAL RATING) COEN DUCT BURNER SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) WITH AMMONIA INJECTION SYSTEM, A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS)

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The gas turbine system (i.e. gas turbine and duct burner) shall be fired exclusively on PUC-regulated gas or PUC-quality natural gas which has a sulfur content less than or equal to 0.017% by weight. [40 CFR 60.333(a) and District Rule 4801] Federally Enforceable Through Title V Permit
3. The sulfur content in the fuel being combusted shall not exceed 0.71 grains/100 scf, otherwise, the fuel shall be of PUC-regulated quality. [District Rule 2201] Federally Enforceable Through Title V Permit
4. If the gas turbine system is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520] Federally Enforceable Through Title V Permit
5. If the gas turbine system is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334(h)(3)] Federally Enforceable Through Title V Permit
6. HHV and LHV of the fuel shall be determined by using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.335(b), District Rule 4703] Federally Enforceable Through Title V Permit
7. Emissions from the gas turbine system shall not exceed any of the following limits: 9 ppmvd NOx @ 15% O2 referenced as NO2; 44 ppmvd CO @ 15% O2 when firing both gas turbine and duct burner simultaneously; 86 ppmvd CO @ 15% O2 when firing gas turbine only; 0.012 lb-PM10/MMBtu; 0.026 lb-VOC/MMBtu referenced as methane; and 0.003 lb-SOx/MMBtu referenced as SO2. NOx and CO emission limits are based on 3-hour rolling average period. If unit is in either startup, shutdown, or black start mode during any portion of a clock hour, the unit will not be subject to the ppmvd limits for NOx and CO during that clock hour. [40 CFR 60.332(a) and District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
8. Emissions from the gas turbine system, on days when startup, shutdown, or black start occurs, shall not exceed any of the following limits: 67.8 lb-NOx/day referenced as NO2; 1,174.3 lb-CO/day; 5.6 lb-SOx/day; 22.4 lb-PM10/day; 99.8 lb-VOC/day referenced as methane; and 53.1 lb-NH3/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Emissions from the gas turbine system shall not exceed any of the following limits: 22,516 lb-NOx/year; 73,595 lb-CO/year; 2,047 lb-SOx/year; 8,189 lb-PM10/year; 17,999 lb-VOC/year; 19,339 lb-NH3/year. All annual emission limits are based on 12 consecutive month rolling emissions total. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Ammonia (NH3) emissions shall not exceed 21 ppmvd @ 15% O2 over a 24-hour average period. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Each three hour rolling average will be compiled from the three most recent one hour periods. Each one hour period shall commence on the hour. Each one hour period in a twenty-four hour average for ammonia slip will commence on the hour. The twenty-four hour average will be calculated starting and ending at twelve-midnight. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Daily emissions shall be compiled for a twenty-four hour period starting and ending at twelve-midnight. Each calendar month in a twelve consecutive month rolling emissions total shall commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions totals used to determine compliance with annual emission limits shall be compiled from the twelve most recent calendar months. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] Federally Enforceable Through Title V Permit

14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

15. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit

16. Source testing to measure start-up mass emission rates of NOx, CO, and VOC shall be conducted for one of the gas turbine engines (S-1128-376 or -377) at least once every seven years. CEMS relative accuracy shall be determined during source testing in accordance with the procedure listed in 40 CFR Part 60, Appendix F with any necessary changes approved by the District. [District Rule 1081] Federally Enforceable Through Title V Permit

17. Source testing to determine compliance with the NOx, CO and NH3 emission rates (ppmvd @ 15% O2) during normal operation shall be conducted annually. [District Rules 2201 and 4703, CFR 60.335(a)] Federally Enforceable Through Title V Permit

18. For the purpose of determining compliance with the emissions limits (ppmvd @ 15% O2) during normal operation in this permit, the arithmetic mean of three test runs shall apply, unless two of the three results are above an applicable limit. If two of three runs are above the applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

19. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM10 - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O2 - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 40 CFR 60.335(a), and 40 CFR 60.335(b)(1)] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. Source test to demonstrate compliance with NOx and CO emission limits shall be conducted with duct burner "on" and "off" configurations. An annual demonstration of compliance with the duct burner in operation is not required in any year in which the duct burner is not operated at all in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of resumption of operation of the duct burner. An annual demonstration of compliance with the duct burner not in operation is not required in any year in which the duct burner operated continuously in conjunction with the turbine in the preceding 12 months, in such case, the unit shall be compliance source tested within 60 days of shutdown of operation of the duct burner. [District Rule 2201 and 4703] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NOx, CO, and O2 concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided that CEMS passes the relative accuracy requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2) and District approved protocol for startups. If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the source test conducted by the facility to determine compliance with emission limits contained in this document. [District Rules 1080, 2201 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

23. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour or shall meet equivalent specifications established by mutual agreement of the District, the CARB and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(2)] Federally Enforceable Through Title V Permit

24. The NOx, CO and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specification 2 (PS 2), District approved protocol for startups, or shall meet equivalent specifications established by mutual agreement of the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

25. In accordance with 40 CFR Part 60, Appendix F, 5.1, the CEMS must be audited at least once each calendar quarter. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit

26. NOx, CO and O2 concentrations from the gas turbine systems operating under permits S-1128-376 and S-1128-377 shall be monitored by a common CEMS. The requirements in 40 CFR 60, Appendix F, shall be met through the following EPA and District approved modified procedures: (1) perform annual RATA testing on at least one unit (S-1128-376 or S-1128-377), and rotate the unit tested so that each unit is tested over two years; (2) perform annual RAA testing for the unit for which the annual RATA is not performed, (3) if a unit fails RAA testing, RATA test must be conducted within 60 days on the failed unit, and 4) for every quarter that RATA or RAA testing is not performed, a CGA is to be performed on each unit. [District Rules 1080 and 4703, 40 CFR 60.334(b)(1)] Federally Enforceable Through Title V Permit

27. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the required monitoring devices to ensure that such devices are functioning properly. [District Rule 1080] Federally Enforceable Through Title V Permit

28. The CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h), or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [District Rule 1080 and 40 CFR 60.334(b)(3)] Federally Enforceable Through Title V Permit

29. Upon written notice from the District, the owner or operator shall provide a summary of the data obtained from the CEMS. This summary shall be in the form and the manner prescribed by the District. [District Rule 1080] Federally Enforceable Through Title V Permit

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30. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEMS data polling software system, or a District approved alternative polling method, and shall make CEMS data available to the District on a daily basis. Upon notice by the District that the facility's CEMS is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEMS data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

31. The permittee shall maintain the following records: the date, time and duration of any malfunction of the continuous monitoring equipment; dates of performance testing; dates of evaluations, calibrations, checks, and adjustments of the continuous monitoring equipment; date and time period which a continuous monitoring system or monitoring device was inoperative. [District Rules 1080 and 2201 and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit

32. The owner or operator shall submit a written report of CEMS operations for each calendar quarter to the District. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60.334(j)(5)] Federally Enforceable Through Title V Permit

33. Monitor downtime for NOx shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx concentration or diluent O2 (or both). [40 CFR 60.334(j)1)(iii)(B)] Federally Enforceable Through Title V Permit

34. If the gas turbine system is not fired on PUC-regulated natural gas, then a fuel sample shall be collected during the source test to determine sulfur content of the fuel combusted in the turbine. The fuel sample shall be analyzed for the total sulfur content using ASTM D1072; D3246; D4084; D4468; D6228; or D6667; or double GC for H2S and mercaptans. The applicable ranges of some ASTM methods are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of dilution ratio) may be used after getting a prior approval from the District. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit

35. A totalizing mass or volumetric fuel flow computer shall be utilized and maintained to calculate the amount of natural gas combusted based on measured flow meter parameters (fuel pressure and temperature) and gas composition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

36. Except during black start, each startup shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

37. Each shutdown shall not exceed 2.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

38. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup (black start) and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

39. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rule 4703] Federally Enforceable Through Title V Permit

40. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4703] Federally Enforceable Through Title V Permit

41. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703] Federally Enforceable Through Title V Permit

42. A black start event is defined as the startup of a unit while the cogen plant is electrically separated from the utility grid. A black start event shall not exceed 4.0 hours per event. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

44. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of each start-up (or black start) and each shutdown time period. [District Rule 4703] Federally Enforceable Through Title V Permit

45. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

46. The requirements of 40 CFR 72.6 (b) do not apply to this source because it is not a Title IV source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rule 4201, 3.1; Rules 406 (Fresno), 407 (Kings, San Joaquin, Stanislaus, Tulare, Merced, and Kern), and 404 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: 40 CFR 60.332(a), 60.335 (a), (b) and (c) . A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

49. Compliance with the permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: SJVUAPCD Rule 4703, 6.2.4, 6.3, 6.4.1, 6.4.3 and 6.4.5. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-385-39 **EXPIRATION DATE:** 02/28/2006

SECTION: 1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
THERMALLY ENHANCED OIL RECOVERY (TEOR) OPERATION WELL VENT VAPOR CONTROL SYSTEM #CC-1Y SERVING 770 STEAM ENHANCED WELLS INCLUDING HEAT EXCHANGERS, GAS/LIQUID SEPARATORS, COMPRESSORS, GAS FLOW AND TEMPERATURE INDICATORS, AUTOMATIC WELL TEST STATIONS, AND GAS PIPING TO SULFEROX PLANT S-1128-116, SCRUBBED STEAM GENERATORS, OR DOGGR APPROVED DISPOSAL WELL(S)

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. The operation includes gauge vessel(s), heat exchanger(s), gas/liquid separator(s), condensate tank(s), vapor compressor(s), gas volume flow rate and temperature indicators, and gas piping to either TEOR permit S-1128-116 collection system, TEOR permit S-1128-130 collection system, scrubbed steam generators S-1128-3, '-24, '-25, '-26, and '-29 through '-34, or DOGGR approved disposal well(s). [District NSR Rule] Federally Enforceable Through Title V Permit
3. VOC content of hydrocarbons in gas processed shall not exceed 50% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fugitive VOC emissions from components in vapor and condensate service shall not exceed 364 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Fugitive VOC limit listed above does not include components at the well-head up to the point of initial gas/liquid separation, or existing production handling or flow measurement facilities, or shown to be handling produced fluids with an API gravity less than 30 degrees or fluid streams containing more than 50% water (by weight) or with a VOC content of 10% (by weight) or less. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Components to be screened and counted for determining compliance with fugitive VOC limit listed above shall be identified and categorized according to the appropriate fluid types (gas or water/oil) in Table 2-4 of the EPA's "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017) and the following component types: valves, fittings, threaded connections, open-ended lines, pumps, compressors, pressure relief devices, pipes, flanges, process drains, sealing mechanisms, hatches, sight-glasses, meters, or seal fluid systems. [District Rule 2201] Federally Enforceable Through Title V Permit
7. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit a current listing of all steam enhanced wells connected to the casing vent control system and a copy of DOGGR approval of disposal well(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. Permittee shall maintain for a period of five years, accurate daily records of volume of vapors handled, a list of all thermally enhanced production wells associated with this operation, accurate records of fugitive inspection component counts and leak inspection results, and make such records readily available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Permittee shall maintain with the permit accurate fugitive component counts of vapor and condensate handling equipment and resulting emissions calculated using the EPA "1995 Protocol for Equipment Leak Emission Estimates" (EPA-453/R-95-017), Oil and Gas Production Operations Average Emission Factors, Table 2-4. [District Rule 2201] Federally Enforceable Through Title V Permit

11. Permittee shall maintain a written record of VOC content of the gas (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 2201] Federally Enforceable Through Title V Permit

12. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401] Federally Enforceable Through Title V Permit

13. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401] Federally Enforceable Through Title V Permit

14. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401] Federally Enforceable Through Title V Permit

15. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

16. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

17. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

18. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401] Federally Enforceable Through Title V Permit

19. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

20. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401] Federally Enforceable Through Title V Permit

21. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

22. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401] Federally Enforceable Through Title V Permit

23. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401] Federally Enforceable Through Title V Permit

24. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401] Federally Enforceable Through Title V Permit

25. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401] Federally Enforceable Through Title V Permit

26. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401] Federally Enforceable Through Title V Permit

27. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

28. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401] Federally Enforceable Through Title V Permit

29. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401] Federally Enforceable Through Title V Permit

30. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

31. 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

32. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401] Federally Enforceable Through Title V Permit

33. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401] Federally Enforceable Through Title V Permit

34. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401] Federally Enforceable Through Title V Permit

35. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401] Federally Enforceable Through Title V Permit

36. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401] Federally Enforceable Through Title V Permit

37. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401] Federally Enforceable Through Title V Permit

38. 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

39. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401] Federally Enforceable Through Title V Permit

40. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401] Federally Enforceable Through Title V Permit

41. 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

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

42. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401] Federally Enforceable Through Title V Permit

43. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401] Federally Enforceable Through Title V Permit

44. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401] Federally Enforceable Through Title V Permit

45. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401] Federally Enforceable Through Title V Permit

46. Permittee shall maintain a current listing of wells with a packer installed and include the label "Packer" on wells with packers. Wells with a packer are not subject to VOC emissions checks and are not open-ended lines under Rule 4401. [District Rules 2201 and 4401] Federally Enforceable Through Title V Permit

47. The requirements of Rule 4401 do not apply to components serving the produced fluid line. [District Rule 4401] Federally Enforceable Through Title V Permit

48. Except for the requirements of Sections 6.1, 6.6.6, and 7.2 of Rule 4401, the requirements of Rule 4401 shall not apply to the following components: pressure relief devices, pumps, and compressors that are enclosed and whose emissions are controlled with an operating VOC collection and control system, components buried below ground, components used exclusively in vacuum service, and one-half inch nominal or less stainless steel tube fittings which have been demonstrated to the APCO to be leak-free based on initial inspection using EPA Test Method 21. [District Rule 4401] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-390-7

EXPIRATION DATE: 02/28/2006

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EQUIPMENT DESCRIPTION:
797 CYCLIC WELLS WITH CLOSED CASING VENTS

PERMIT UNIT REQUIREMENTS

1. {1294} The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4407, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
2. All required source testing shall conform to the compliance testing procedures described in District Rule 1081(as amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
3. Permittee shall maintain a current well roster of all closed vent wells, and such roster shall be made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
4. A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
5. A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
6. During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
7. Permittee shall not operate a steam-enhanced crude oil production well unless they comply with one of the following requirements: 1) Permittee shall keep the steam-enhanced crude oil production well vents closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) shall be connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere; or 2) Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.5.1, and 5.5.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 3 of Rule 4401. [District Rule 4401, 5.6.2] Federally Enforceable Through Title V Permit

9. The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.7.1] Federally Enforceable Through Title V Permit

10. Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.7.2] Federally Enforceable Through Title V Permit

11. Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.1 & 5.8.2] Federally Enforceable Through Title V Permit

12. Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

13. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 4 of Rule 4401. [District Rule 4401, 5.8.3] Federally Enforceable Through Title V Permit

14. Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

15. Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.8.4] Federally Enforceable Through Title V Permit

16. Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

17. Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.8.5] Federally Enforceable Through Title V Permit

18. Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.9.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

19. Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.9.2] Federally Enforceable Through Title V Permit

20. Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.9.3] Federally Enforceable Through Title V Permit

21. Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 4 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.9.4] Federally Enforceable Through Title V Permit

22. The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 4 of Rule 4401. [District Rule 4401, 5.9.5, and 5.9.6] Federally Enforceable Through Title V Permit

23. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.9.7] Federally Enforceable Through Title V Permit

24. All records of required monitoring data and support information required by this permit shall be retained for a period of at least five years and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2, and 4401, 6.1] Federally Enforceable Through Title V Permit

25. Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit

26. Unless waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

27. Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit

28. Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1.8] Federally Enforceable Through Title V Permit

29. Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

30. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

31. VOC content shall be determined using the latest revision of ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

32. Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

33. VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.5] Federally Enforceable Through Title V Permit

34. Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.5 & 6.4] Federally Enforceable Through Title V Permit

35. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.7 & 6.5] Federally Enforceable Through Title V Permit

36. In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit

37. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 5.7.3, and 6.7] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-396-7 **EXPIRATION DATE:** 02/28/2006

SECTION: NW08 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
DORMANT EMISSIONS UNIT: 30 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR DIS# 9157-67

PERMIT UNIT REQUIREMENTS

1. This permit unit shall not be operated unless the owner or operator applies to modify the Title V permit to address the requirements of District Rule 2520, section 9.0 for this permit unit. [District Rule 2520, 9.0] Federally Enforceable Through Title V Permit
2. This equipment shall not be operated for any reason until necessary retrofits are made to comply with the applicable requirements of District Rule 4306. [District Rule 4305 and 4306] Federally Enforceable Through Title V Permit
3. No modification to this unit shall be performed without an Authority to Construct for that modification(s), except for changes specified in condition 4 below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The fuel supply line shall be locked out with spectacle blind or physically disconnected or prevented from this unit. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emissions rates shall not exceed any of the following: NOx (as NO2): 30 ppmv @3% O2; or CO: 400 ppmv @3% O2. [District Rule 4305] Federally Enforceable Through Title V Permit
7. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 2201] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-400-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,000 BBL FIXED ROOF FWKO TANK (T-11) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-401-9 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,000 BBL FIXED ROOF FWKO TANK (T-12) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-402-11 **EXPIRATION DATE:** 02/28/2006

SECTION: 31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
360 BBL FIXED ROOF CONSTANT LEVEL CRUDE OIL STORAGE TANK (T-19) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-404-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF WASH TANK (T-21) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-405-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF WASH TANK (T-22) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-406-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
10,000 BBL FIXED ROOF WASH TANK (T-23) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-407-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
5,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-40) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-409-7

EXPIRATION DATE: 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
214,326 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-411-8 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-31) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit
22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit
25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit
26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit
28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit
29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-412-8

EXPIRATION DATE: 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
6,600 BBL FIXED ROOF CRUDE OIL STORAGE TANK (T-32) VENTED TO VAPOR CONTROL SYSTEM LISTED ON PTO S-1128-248 (CYMRIC 31X OCP)

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. VOC content of total hydrocarbons in gas processed by the vapor control system shall not exceed 50% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

14. The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 99% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured at a distance of one centimeter from the potential source with an instrument calibrated with methane in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

16. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit

17. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

18. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District NSR Rule] Federally Enforceable Through Title V Permit

20. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of this permit. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of this permit. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Any component found to be leaking on two consecutive annual inspections is in violation of the District NSR Rule, even if it is under the voluntary inspection and maintenance program. [District NSR Rule] Federally Enforceable Through Title V Permit

23. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

24. Control efficiency shall be determined by a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor recovery system. Emissions shall be determined based on tank emission factors in EPA Publication AP-42, component counts for fugitive emissions sources, recognized emission factors for fugitive emission sources and the efficiency of any VOC destruction device. [District NSR Rule] Federally Enforceable Through Title V Permit

25. The efficiency of any VOC destruction device shall be measured by EPA Method 18, 25, 25a, or 25b. [District NSR Rule] Federally Enforceable Through Title V Permit

26. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4623, 6.3] Federally Enforceable Through Title V Permit

28. The tank shall vent to vapor control system listed in S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

29. Fugitive VOC emissions from this tank and associated vapor recovery system shall not exceed the amount specified on S-1128-248. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-415-4

EXPIRATION DATE: 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
5,712 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-416-4 **EXPIRATION DATE:** 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 29S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
7,602 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-425-4

EXPIRATION DATE: 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF DRAIN TANK TS #5

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-426-4

EXPIRATION DATE: 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF DRAIN TANK TS #7

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-427-4

EXPIRATION DATE: 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF DRAIN TANK TS #6

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-428-4

EXPIRATION DATE: 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED DRAIN TANK TS #4

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-431-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
43,428 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-435-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE1 **TOWNSHIP:** 30S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
211,596 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-437-4

EXPIRATION DATE: 02/28/2006

DRAFT

EQUIPMENT DESCRIPTION:
4,746 GALLON FIXED GUAGE TANK GS #2

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-438-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SW5 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
4,746 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-455-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE8 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
22,008 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-456-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE8 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:
33,600 GALLON FIXED ROOF CRUDE OIL STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-526-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE27 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
43,428 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-529-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE35 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
4,746 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-530-4 **EXPIRATION DATE:** 02/28/2006

SECTION: NE35 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
43,428 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-536-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
22,008 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-540-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
11,005 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-542-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
11,004 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-546-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
82,320 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-548-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW36 **TOWNSHIP:** 29S **RANGE:** 21E

EQUIPMENT DESCRIPTION:
82,320 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-588-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW5 **TOWNSHIP:** 11N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-600-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW1 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
41,622 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-605-5 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF CRUDE OIL STORAGE TANK #T-5 WITH VAPOR CONTROL SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.
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21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-606-4

EXPIRATION DATE: 02/28/2006

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SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
5,292 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-607-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
56,952 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-608-5 **EXPIRATION DATE:** 02/28/2006

SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF WASTE WATER TANK #T-158B WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-609-5 **EXPIRATION DATE:** 02/28/2006

SECTION: NW02 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF WASTE WATER TANK #T-158A WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-183

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District NSR Rule and District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

10. During tank degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system. [District Rule 2080] Federally Enforceable Through Title V Permit

11. While performing tank cleaning activities, operators may only use the following cleaning agents: diesel, solvents with an initial boiling point of greater than 302 degrees F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams of VOC per liter or less. [District Rule 2080] Federally Enforceable Through Title V Permit

12. Steam cleaning shall only be allowed at locations where wastewater treatment facilities are limited, or during the months of December through March. [District Rule 2080] Federally Enforceable Through Title V Permit

13. Tank shall vent only to the vapor control system listed on permit S-1128-183. [District NSR Rule] Federally Enforceable Through Title V Permit

14. Maximum VOC content of vapor in the tank vapor control system shall not exceed 10% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit

15. Operator shall conduct quarterly gas sampling to qualify for exemption from fugitive component counts for components handling fluids with 10% VOC or less by weight. If fluids sampled are 10% VOC or less by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District NSR Rule] Federally Enforceable Through Title V Permit

16. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

17. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. All piping, fittings, valves, and roof appurtenances shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.3.2] Federally Enforceable Through Title V Permit

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 2520, 9.4.2] Federally Enforceable Through Title V Permit

24. Noncondensible vapor from tanks and free water knockout vessel shall not be vented to atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

25. There shall be no vapor backflow into tanks. [District NSR Rule] Federally Enforceable Through Title V Permit

26. Steam plant downtime due to scheduled maintenance shall not exceed 3 hours without prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit

27. {1740} This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

28. {1741} This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

29. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

30. The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2, and 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-610-4

EXPIRATION DATE: 02/28/2006

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SECTION: NW2 **TOWNSHIP:** 11N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
59,178 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-617-10 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
3000 BBL FIXED ROOF PRODUCED WATER TANK #T-6 WITH VAPOR RECOVERY SYSTEM SHARED WITH S-1128-618,-620,-621,-622,-623, -625, AND '-954, BAKER PETROLITE SULFASCRUB MODEL HSW 700 H2S SCAVENGING SYSTEM, AND VAPOR PIPING TO DISTRICT-APPROVED DISPOSAL OPTIONS AS IDENTIFIED IN THIS PERMIT

PERMIT UNIT REQUIREMENTS

1. {966} The tank shall be equipped with a vapor loss prevention system capable of collecting all VOC emissions and preventing their emissions to the atmosphere at an efficiency of at least 95% by weight. [District Rule 4623, 5.3.1] Federally Enforceable Through Title V Permit
2. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a gas-tight cover which shall be closed at all times except during gauging or sampling. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.2] Federally Enforceable Through Title V Permit
3. All piping, valves and fittings shall be constructed and maintained in a gas-tight condition. Gas-tight shall be defined as emitting no more than 10,000 ppm of methane measured in accordance with EPA Method 21. Emissions in excess of this limit shall be considered a leak. [District Rule 4623, 5.3.3] Federally Enforceable Through Title V Permit
4. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
5. If any of the tank components are found to be leaking, operator shall immediately affix a tag and maintain records of gas leak detection readings, date/time leak was discovered, and date/time the component was repaired to a leak-free condition. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
6. Upon detection of any leaking components (having a gas leak >10,000 ppmv, measured in accordance with EPA Method 21 by a portable hydrocarbon detection instrument that is calibrated with methane) operator shall: (a) Eliminate or minimize the leak within 8 hours after detection. (b) If the leak can not be eliminated, then minimize the leak to the lowest possible level within 8 hours after detection by using best maintenance practices; and eliminate the leak within 48 hours after detection. (c) In no event that the total time to minimize and eliminate the leak shall exceed 56 hours after detection. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit
7. Leaking tank components affixed to the tank or within five feet of the tank that have been discovered by the operator and that have been immediately tagged and repaired within the specified deadlines, shall not constitute a violation of the District Rule 4623. However, leaking components discovered during inspections by District staff that were not previously identified and/or tagged by the operator, and/or any leaks that were not repaired within specified deadlines, shall constitute a violation of the District Rule 4623. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

8. If a component type for a given tank is found to leak during an annual inspection, then conduct quarterly inspections of that component type on the tank or tank system for four consecutive quarters. If a component type is found to have no leak after four consecutive quarterly inspections, then revert to annual inspections. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

9. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rule 4623, 5.7 (Table 3)] Federally Enforceable Through Title V Permit

10. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

11. The efficiency of any VOC destruction device shall be measured by EPA Method 18 or 25, 25a, or 25b. [District Rule 4623, 6.2.5] Federally Enforceable Through Title V Permit

12. {981} The operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

13. {941} The operator of a fixed roof tank shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. {982} Compliance with permit conditions in the Title V permit shall be deemed compliance with SJVUAPCD Rule 4623 (Amended December 17, 1992). A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. {983} The requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. {984} The requirements of SJVUAPCD Rule 4661 (Amended December 17, 1992) and Rule 4801 (Amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Collected vapors shall be directed to either: 1. 1-C Gas Plant listed under permit S-48-1, 2. H2S scavenging system, 3. TEOR well vent vapor piping from TEOR well system listed under permit S-1128-125, and/or 4. Steam generators S-1128-15 and /or '-18. [District NSR Rule] Federally Enforceable Through Title V Permit

18. H2S scavenging system shall include triazine storage tank and feed pump. H2S-laden liquid shall be handled in downstream wastewater facilities in such a manner to prevent the evolution of sulfur compounds to the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit

19. Outlet gas from H2S scavenging system shall not exceed 12.0 ppmv H2S. [District NSR Rule] Federally Enforceable Through Title V Permit

20. H2S scavenging system shall be in operation whenever vapors are being incinerated in 2F steam plant steam generators S-1128-16, -17, -19, -23 or -920. [District NSR Rule] Federally Enforceable Through Title V Permit

21. When H2S scavenging is required, permittee shall measure and record sulfur content of H2S scavenging system outlet gas on a quarterly basis, using ASTM method D 1072, D 3031, D 4084 or D 3246, and on a weekly basis using gas detection tubes. [District NSR Rule] Federally Enforceable Through Title V Permit

22. Upon passing quarterly ASTM H2S testing for three consecutive quarters, permittee may test on an annual basis. If a weekly or ASTM test shows noncompliance with the sulfur content requirement, quarterly ASTM testing shall resume until three consecutive quarterly tests show compliance. [District NSR Rule] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-618-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF LACT TANK #T-4 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

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PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor collection system, permit S-1128-617, except during periods of vessel cleaning or vapor control system maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] 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 NSR Rule and District Rule 4623, 6.2.2] 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, 6.4.2] 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 NSR Rule and District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] 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, 6.3.6] 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 Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
9. Permittee shall notify the APCO in writing at least three (3) days prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following: 1) the Permit to Operate number and physical location of the tank being degassed, 2) the date and time that tank degassing and cleaning activities will begin, 3) the degassing method, as allowed in this permit, to be used, 4) the method to be used to clean the tank, including any solvents to be used, and 5) the method to be used to dispose of any removed sludge, including methods that will be used to control emissions from the receiving vessel and emissions during transport. [District Rule 2080] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

10. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

11. 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

12. 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

13. 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

14. Emissions from this tank shall not exceed 1.9 lbs VOC per day. [District NSR Rule] Federally Enforceable Through Title V Permit

15. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2201 and 4623, 6.3] Federally Enforceable Through Title V Permit

23. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

24. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-621-6 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
775 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-7 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor collection system, permit S-1128-617, except during periods of vessel cleaning or vapor control system maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] 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 NSR Rule and District Rule 4623, 6.2.2] 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 Rules 1070, 2520, 9.4.2, and 4623, 6.4.2] 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 NSR Rule and District Rules 2520, 9.4.2, and 4623, 6.4.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported.. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. 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

10. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

11. 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

12. 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

13. 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

14. Emissions from this tank shall not exceed 3.0 lbs VOC per day [District NSR Rule] Federally Enforceable Through Title V Permit

15. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2201 and 4623, 6.3] Federally Enforceable Through Title V Permit

23. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

24. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

25. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-622-7

EXPIRATION DATE: 02/28/2006

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SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
3,300 BBL FIXED ROOF PETROLEUM WASH TANK #T-2 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor collection system, permit S-1128-617, except during periods of vessel cleaning or vapor control system maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] 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 NSR Rule and District Rule 4623, 6.2.2] 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 Rules 1070, 2520, 9.4.2, and 4623, 6.4.2] 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 NSR Rule and District Rules 2520, 9.4.2, and 4623, 6.4.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported.. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. 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

10. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

11. 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

12. 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

13. 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

14. Emissions from this tank shall not exceed 3.0 lbs VOC per day [District NSR Rule] Federally Enforceable Through Title V Permit

15. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2201 and 4623, 6.3] Federally Enforceable Through Title V Permit

23. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

24. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

25. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-623-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
3,020 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-1 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor collection system, permit S-1128-617, except during periods of vessel cleaning or vapor control system maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] 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 NSR Rule and District Rule 4623, 6.2.2] 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 Rules 1070, 2520, 9.4.2, and 4623, 6.4.2] 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 NSR Rule and District Rules 2520, 9.4.2, and 4623, 6.4.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported.. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

9. 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

10. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

11. 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

12. 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

13. 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

14. Emissions from this tank shall not exceed 2.8 lbs VOC per day [District NSR Rule] Federally Enforceable Through Title V Permit

15. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2201 and 4623, 6.3] Federally Enforceable Through Title V Permit

23. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

24. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

25. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-625-7 **EXPIRATION DATE:** 02/28/2006

SECTION: SW31 **TOWNSHIP:** 12N **RANGE:** 23W

EQUIPMENT DESCRIPTION:
2,000 BBL FIXED ROOF PETROLEUM STORAGE TANK #T-3 WITH VAPOR RECOVERY SYSTEM SHARED WITH TANK S-1128-617

PERMIT UNIT REQUIREMENTS

1. Tank shall be designed and maintained to vent only to vapor collection system, permit S-1128-617, except during periods of vessel cleaning or vapor control system maintenance. [District NSR Rule] Federally Enforceable Through Title V Permit
2. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District NSR Rule and District Rule 4623, 4.4] 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 NSR Rule and District Rule 4623, 6.2.2] 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 Rules 1070, 2520, 9.4.2, and 4623, 6.4.2] 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 NSR Rule and District Rules 2520, 9.4.2, and 4623, 6.4.4] Federally Enforceable Through Title V Permit
6. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rules 2520, 9.3.2, and 4623, 6.3] Federally Enforceable Through Title V Permit
8. Control efficiency shall be determined by US EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case US EPA Method 25a may be used. US EPA Method 18 may be used in lieu of US EPA Method 25 or US EPA Method 25A provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of the known analytes/compounds to ensure that the VOC concentrations are neither under- or over-reported.. [District Rule 4623, 6.4.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

9. 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

10. This tank shall be degassed before commencing interior cleaning by following one of the following options: 1) exhausting VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less, or 2) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia, or 3) by displacing VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight. [District Rule 2080] Federally Enforceable Through Title V Permit

11. 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

12. 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

13. 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

14. Emissions from this tank shall not exceed 2.9 lbs VOC per day [District NSR Rule] Federally Enforceable Through Title V Permit

15. A leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

16. All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

17. A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

18. An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

19. Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

20. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

21. Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The permittee shall keep accurate records of each organic liquid stored in the tank including its type, storage temperature, TVP, and API gravity, for a period of five years, and shall make such records available for District inspection upon request. [District Rules 2201 and 4623, 6.3] Federally Enforceable Through Title V Permit

23. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit

24. This unit has a storage capacity less than 420,000 gallons and is used for petroleum or condensate stored, processed and/or treated at a drilling and production facility prior to custody transfer. Therefore, the requirements of 40CFR 60 Subpart K, Ka and Kb do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

25. This unit does not store organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. Tank emissions are fugitive emissions not considered to come from a point source. Therefore, the requirements of District Rules 4661 (as amended May 16, 2002) and 4801 (as amended December 17, 1992) do not apply to this source. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-631-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE26 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-633-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
68,502 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-634-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-635-4 **EXPIRATION DATE:** 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-636-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
68,502 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-637-4 **EXPIRATION DATE:** 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-638-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
9,408 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-639-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
43,764 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-640-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: SE36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
21,126 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-690-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
42,000 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-691-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
67,242 GALLON FIXED ROOF STORAGE TANK

PERMIT UNIT REQUIREMENTS

1. This tank shall only store, place, or hold organic liquid with a true vapor pressure (TVP) of less than 0.5 psia under all storage conditions. [District Rule 4623, 4.4] Federally Enforceable Through Title V Permit
2. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or a representative tank as provided in Section 6.2.1.1 of District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
3. The API gravity of crude oil or petroleum distillate shall be determined by using ASTM Method D 287 e1 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method). Sampling for API gravity shall be performed in accordance with ASTM Method D 4057 "Standard Practices for Manual Sampling of Petroleum and Petroleum Products." [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
4. For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "test Method for Vapor pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
5. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
6. Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. The permittee shall keep accurate records of each organic liquid stored in the tank, including its storage temperature, TVP, and API gravity. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
8. All records required to be maintained by this permit shall be maintained for a period of at least 5 years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1128-692-4

EXPIRATION DATE: 02/28/2006

DRAFT

SECTION: NE25 **TOWNSHIP:** 32S **RANGE:** 23E

EQUIPMENT DESCRIPTION:
67,242 GALLON FIXED ROOF STORAGE TANK

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