



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUG 08 2011

George McMurren
Elk Hills Power, LLC
P.O. Box 460
Tupman, CA 93276

**Re: Notice of Preliminary Decision - Title V Permit Renewal
District Facility # S-3523
Project # S-1104061**

Dear Mr. McMurren:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Elk Hills Power, LLC for its gas turbine combined cycle power plant located at Tupman, 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: Dennis Roberts, Permit Services Engineer

Sayed Sadredin
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
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2700 M Street, Suite 275
Bakersfield, CA 93301-2373
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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUG 08 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-3523
Project # S-1104061**

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 Elk Hills Power, LLC for its gas turbine combined cycle power plant located at Tupman, 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: Dennis Roberts, Permit Services Engineer

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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

AUG 08 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-3523
Project # S-1104061**

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 Elk Hills Power, LLC for its gas turbine combined cycle power plant located at Tupman, 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: Dennis Roberts, Permit Services Engineer

Seyed Sadredin
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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 Elk Hills Power, LLC for its gas turbine combined cycle power plant located at Tupman, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1104061, 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**

**Proposed Title V Permit Renewal Evaluation
Elk Hills Power, LLC
S-3523**

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TITLE V PERMIT RENEWAL EVALUATION
Cogeneration Facility

Engineer: Dennis Roberts
Date: July 26, 2011

Facility Number: S-3523
Facility Name: Elk Hills Power, LLC
Mailing Address: P.O.Box 460
Tupman, CA 93276

Contact Name: George McMurren
Phone: (661) 763-2727

Responsible Official: George McMurren
Title: Plant Manager

Project # : S-1104061
Deemed Complete: August 23, 2010

I. PROPOSAL

Elk Hills Power was issued a Title V permit on August 31, 2006. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

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

II. FACILITY LOCATION

Elk Hills Power is located at 4026 Skyline Road, Tupman, Kern County, CA.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

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

- A. *SJV-UM-0-3, Facility Wide Umbrella*
- B. The applicant has requested to utilize template *SJV-UM-0-3, Facility Wide Umbrella*. Based on the information submitted on the Template Qualification Form, the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

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

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

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

- Conditions 1 through 40 of the facility-wide requirements, permit unit S-3523-0-2

VI. FEDERALLY ENFORCEABLE REQUIREMENTS

A. Updated Rules Not Addressed by General Permit Template

- District Rule 2201, New and Modified Stationary Source Review Rule (amended September 21, 2006 ⇒ amended December 18, 2008 ⇒ amended April 21, 2011)

- District Rule 4702, Internal Combustion Engines–Phase 2
(amended April 20, 2006 ⇒ amended January 18, 2007)
- District Rule 4703, Stationary Gas Turbines
(amended August 17, 2006 ⇒ amended September 20, 2007)
- 40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 (amended January 28, 2009)
- 40CFR Part 60, KKKK, Standards of Performance for Stationary Combustion Turbines, (amended March 20, 2009)
- 40 CFR Part 63, Subpart Q, National Emissions Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers – Residual Risk
(amended April 7, 2006)
- 40 CFR Part 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
(amended April 20, 2008)
- 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (amended January 18, 2008)
- 40 CFR Part 72, Permits Regulation (amended March 28, 2011)
- 40 CFR Part 75, Continuous Emission Monitoring (amended March 28, 2011)

B. Updated Rules Addressed by General Permit Template

- District Rule 2020, Exemptions
(amended September 21, 2006 ⇒ amended December 20, 2007)
- District Rule 4601, Architectural Coatings
(amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4601, Architectural Coatings (amended December 17, 2009)
- 40 CFR Part 82, Subpart B and F, Stratospheric Ozone
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos

C. 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 (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001)
- District Rule 4001, New Source Performance Standards (amended April 14, 1999)
- District Rule 4101, Visible Emissions
(amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4202, Particulate Matter - Emission Rate (amended December 17, 1992)
- District Rule 4701, Internal Combustion Engines (amended August 21, 2003)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)

- District Rule 7012, Hexavalent Chromium - Cooling Towers (amended December 17, 1992)
- 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 60, Subpart GG - Standards for Performance of Stationary Gas Turbines
(amended February 24, 2006)
- 40 CFR Part 60, Subpart A, Monitoring Requirements Sept. 13, 2010
- 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (July 11, 2006)
- 40 CFR Part 64, Compliance Assurance Monitoring
- 40 CFR Part 73, Sulfur Dioxide Allowance System
- 40 CFR Part 77, Excess Emissions

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. District Rule 4102, Nuisance

Condition 41 of permit unit S-3523-0-2 is based on District Rule 4102 and will therefore not be discussed any further.

B. Title 17, California Code of Regulations Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines

a. S-3523-6-3 – 240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

Conditions 2, 8, 10, 12 and 17 are based on this regulation. However, these conditions also satisfy requirements of District Rule 4702 (federally enforceable) and will therefore be discussed further.

VIII. PERMIT REQUIREMENTS

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

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

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

- 1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

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

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

B. District Rule 2520, Federally Mandated Operating Permits

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

C. District Rule 4702 - Internal Combustion Engines—Phase 2

This rule limits the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines.

The rule applies to any internal combustion engine with a rated brake horsepower greater than 50 horsepower. Permit unit S-3523-6-3 is an emergency firewater pump engine meeting these criteria.

Per to Section 4.3 of the rule, except for the requirements of Section 6.2.3, the requirements of this rule do not apply to an internal combustion engine that meets the following conditions:

- 1) The engine is operated exclusively to preserve or protect property, human life, or public health during a disaster or state of emergency, such as a fire or flood, and
- 2) Except for operations associated with Section 4.3.1.1, the engine is limited to operate no more than 100 hours per calendar year as determined by an operational nonresettable elapsed operating time meter,

- for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine, and
- 3) The engine is operated with 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. The owner of the engine shall properly maintain and operate the time meter or alternative device in accordance with the manufacturer's instructions.

Therefore, permit unit S-3523-6-3 is only required to meet the requirements of Section 6.2.3 of this Rule.

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.

a. S-3523-6-3 – 240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

- Conditions 2, 8, and 13 on the current permit were replaced with updated conditions 2, 10 and 12 on the proposed renewal permit..
- Conditions 6, 9 and 12 on the current permit were replaced by condition 8 on the proposed renewal permit.
- Condition 17 was added to the proposed renewal permit.

D. District Rule 4703 - Stationary Gas Turbines

This rule applies 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.

The rule was amended on September 20, 2007 to include Tier 3 compliance limit requirements. Affected units for Tier 3 compliance include all units with power rating less than or equal to 10 MW and all simple cycle units greater than 10 MW. Since all units at this facility are combined cycle units rated greater than 10 MW, Tier 3 compliance is not applicable. In addition, the term thermal stabilization period was removed from the Rule.

- a. S-3523-1-8 – GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-2 (503 MW TOTAL PLANT NOMINAL RATING)
- b. S-3523-2-8 – GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-1 (503 MW TOTAL PLANT NOMINAL RATING)

The amendments to the rule do not effect the existing permit requirements of these units.

E. 40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978

The provisions of this subpart apply to heat recovery steam generators used with duct burners and associated with an electric utility combined cycle gas turbine that are capable of combusting more than 73 MW (250 MMBtu/hr) heat input of fossil fuel. Affected units at this facility are subject to emission limits which are only applicable to the fuel firing in the duct burners:

§ 60.40Da Applicability and designation of affected facility:

Per § 60.40Da (e)(1&2), this subpart is applicable to heat recovery steam generators used with duct burners and associated with an electric utility combined cycle gas turbine that are capable of combusting more than 73 MW (250 MMBtu/hr) heat input. Only emissions resulting from the combustion of fuels in the steam generating unit (i.e. duct burners) are subject to the standards under this subpart.

§ 60.42Da Standard for particulate matter (PM):

§ 60.42Da (a) limits PM emissions 0.03 lb/MMBtu heat input derived from the combustion of gaseous fuel; § 60.42Da (b) prohibits discharge of any gases

which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

§ 60.43Da Standard for sulfur dioxide (SO₂):

§ 60.43Da (b)(2) allows SO₂ emissions to equal 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 0.20 lb/MMBtu heat input. § 60.43Da (g) stipulates that compliance is determined on a 30-day rolling average basis

§ 60.44Da Standard for nitrogen oxides (NO_x):

§ 60.44Da(a)(1) limits NO_x emissions to 0.20 lb/MMBtu (expressed as NO₂) for natural gas-fired units, on a 30-day rolling average basis except as provided under §60.48Da(j)(1).

In addition, § 60.44Da(a)(2) requires a minimum reduction of 25% in the potential combustion concentration. However, per § 60.48Da (b), compliance with the NO_x emission limitation under §60.44Da(a)(1) constitutes compliance with the percent reduction requirements under §60.44Da(a)(2).

§ 60.45Da Standard for mercury (Hg):

This section is only applicable to units constructed after January 30, 2004. Since all affected units at this facility were constructed prior to that date, this section is not applicable.

§ 60.46Da [Reserved] (not applicable)

§ 60.47Da Commercial demonstration permit (not applicable)

§ 60.48Da Compliance provisions:

This section contains the provisions required to demonstrate compliance with the applicable emission limits.

§ 60.49Da Emission Monitoring

This section contains the applicable emission monitoring requirements.

§ 60.50Da Compliance determination procedures and methods:

This section contains the applicable determination procedures and methods.

§ 60.51Da Reporting requirements:

This section contains the applicable reporting requirements.

§ 60.52Da Recordkeeping requirements:

This section contains the applicable recordkeeping requirements.

a. S-3523-1-8 – GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-2 (503 MW TOTAL PLANT NOMINAL RATING)

b. S-3523-2-8 – GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-1 (503 MW TOTAL PLANT NOMINAL RATING)

- Conditions 32, 33, 36, 40, 44, and 51 have been added to the permit to assure compliance.
- Existing condition 41 was retained to assure compliance.

F. 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

This subpart applies to owners and operators of stationary compression ignition (CI) internal combustion engines (ICE) that commence construction, modify, or reconstruct their stationary CI ICE after July 11, 2005.

The facility does not have any CI ICE that is subject to this subpart.

G. 40CFR Part 60, KKKK Standards of Performance for Stationary Combustion Turbines

The provisions of this subpart are applicable to units which commenced construction, modification, or reconstruction after February 18, 2005, and are thus not applicable to any unit at this facility.

**H. 40 CFR Part 63, Subpart Q, National Emissions Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers – Residual Risk
(amended April 7, 2006)**

The provisions of this subpart apply to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals and are either major sources or are integral parts of facilities that are major sources as defined in §63.401.

This facility does not operate a cooling tower with chromium-based water treatment chemicals and therefore is not subject to this subpart.

I. 40 CFR Part 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

Per § 63.6090 (a)(1) of this subpart, a stationary combustion turbine is defined as “existing” if construction or reconstruction was commenced on or before January 14, 2003. Since this facility commenced construction prior to that date and has not been reconstructed, this facility is an “existing” facility under this subpart.

Per § 63.6090 (a)(4) of this subpart, existing facilities do not have to meet the requirements of this subpart or of subpart A of Part 63. Therefore, the requirements of this subpart are not applicable to this facility.

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

This subpart 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.

The facility is a major source of HAP emissions and has a 240 bhp compression ignition emergency fire pump engine (permit unit S-3523-6-3).

Per § 63.6590 (a), an affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. 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 construction or reconstruction of the stationary RICE commenced before June 12, 2006.

Since construction of permit unit S-3523-6-3 commenced prior to that date and has not been reconstructed, the unit is an "existing" RICE under this subpart. As an existing emergency RICE, the unit at this facility is not subject to any emission limitations of this subpart, and no performance tests, compliance demonstrations, emissions monitoring, notifications or reporting are required under this subpart.

Per § 63.6602 an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions must comply with the applicable requirements in Table 2c of this subpart. The applicable requirements of Table 2c are:

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE. ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply

¹If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work

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 work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

²Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

³Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Per § 63.6605 the general requirements for complying with this subpart are:

- Compliance with the applicable emission limitations and operating limitations in this subpart at all times.
- At all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

Per § 63.6625(e) (monitoring, installation, collection, operation, and maintenance requirements):

- 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 must be operated and maintained according to the manufacturer's emission-related written instructions (including the after-treatment control device if any). Alternatively, a site-specific maintenance plan may be developed 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

Per § 63.6625(f), an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions must be equipped with a non-resettable hour meter.

§ 63.6640 limits the hours operation of existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions. Such engines are limited to 100 hours per year of operation for maintenance checks and readiness testing. § 63.6640(iii) allows that a portion of the specified 100 hours of operation may be made for certain operations other than maintenance and testing.

Per § 63.6655, the following record keeping requirements are applicable to an existing stationary emergency RICE:

- Records of the maintenance conducted on the stationary RICE which demonstrate that operation and maintenance of the stationary RICE and after-treatment control device (if any) is according the facility's maintenance plan.
- 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.

b. S-3523-6-3 – 240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

- Conditions 2, 8, and 13 on the current permit were replaced with updated conditions 2, 10 and 12 on the proposed renewal permit..
- Conditions 6, 9 and 12 on the current permit were replaced by condition 8 on the proposed renewal permit.
- Conditions 13, 14, 15 and 17 were added to the proposed renewal permit.

K. 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; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds

§64.3 - Monitoring Design Criteria

This section specifies the design criteria for the CAM system. Paragraph (a) (*General criteria*) requires that the CAM system be designed to obtain data for one or more appropriate indicators of emission control system performance and requires the owner to establish appropriate ranges or

designated conditions for the selected indicators such that operation within the ranges provides a reasonable assurance of ongoing compliance with emission limitations or standards for the anticipated range of operating conditions.

Paragraph (b) (*Performance criteria*) requires the owner or operator to establish and maintain the following:

- Specifications to ensure that representative data are collected
- Verification procedures for startup of new monitoring equipment
- Quality assurance and control practices to ensure continuing validity of data
- Data collection frequency and procedures

Paragraph (c) (*Evaluation factors*) requires the owner or operator to take into account site specific factors in the design of the CAM system.

Paragraph (d) (*Special criteria for the use of continuous emission, opacity, or predictive monitoring systems*) requires the owner or operator to use a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), or a predictive emission monitoring system (PEMS) to satisfy CAM requirements, provided that these monitoring systems are required pursuant to other authority under the Clean Air Act or state or local law. This subsection also stipulates the following:

- The use of a CEMS, COMS, or PEMS that satisfies any of the following monitoring requirements shall be deemed to satisfy the general design criteria in paragraphs (a) and (b) of this section, provided that a COMS may be subject to the criteria for establishing indicator ranges under paragraph (a) of this section:
 - (i) Section 51.214 and appendix P of 40 CFR 51;
 - (ii) Section 60.13 and appendix B of 40 CFR 60;
 - (iii) Section 63.8 and any applicable performance specifications required pursuant to the applicable subpart of 40 CFR 63; (iv) 40 CFR 75;
 - (v) Subpart H and appendix IX of 40 CFR 266; or
 - (vi) In the event that the monitoring system is not subject to any of the requirements listed above, comparable requirements and specifications established by the permitting authority.
- The owner or operator shall design the monitoring system subject to this paragraph (d) to:

- (i) Allow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement. If an underlying requirement does not contain a provision for establishing an averaging period for the reporting of exceedances or excursions, the criteria used to develop an averaging period specified in the data collection procedures required under paragraph (b) of this section shall apply; and
- (ii) Provide an indicator range consistent with paragraph (a) of this section for a COMS used to assure compliance with a particulate matter standard. If an opacity standard applies to the pollutant-specific emissions unit, such limit may be used as the appropriate indicator range unless the opacity limit fails to meet the criteria in paragraph (a) of this section after considering the type of control device and other site-specific factors applicable to the pollutant-specific emissions unit.

§64.4 - Submittal Requirements

This section specifies submittal requirements for the owner or operator which ensure the CAM system will comply with the design criteria of §64.3.

§64.5 - Deadlines for Submittals

This section specifies required timing for submittals required under §64.4.

Large pollutant-specific emissions units (those with controlled emissions exceeding major source thresholds) are required to make the submittals as a part of the initial Title V permit application where the application has either not been filed or has not been deemed complete. Where the initial Title V permit has been issued without implementation of 40 CFR 64, the owner or operator must make the required submittals as a part of a subsequent application for any significant permit revision. If the required information is not submitted by either of these deadlines, it must be submitted as a part of the application for the Title V permit renewal.

For *other pollutant-specific emissions units*, the required submittal deadline is the application for Title V permit renewal.

§64.6 - Approval of monitoring

This section stipulates the following:

- A requirement that the permitting authority act to approve the proposed monitoring by confirming that the monitoring submitted complies with the requirements of §64.3
- An allowance for the permitting authority to condition the approval based on collecting additional data on the indicators to be monitored, including performance or compliance testing
- The minimum conditions that must be placed on the permit in the event that the proposed monitoring is approved by the permitting authority including a milestone schedule for completion of any conditional approval actions required by the owner or operator, such as installations, testing, or verification of operational status
- Actions required by the permitting authority in the event that the proposed monitoring is not approved

The CAM submittal requirements and stipulations for approval of such submittals pursuant to §64.4, §64.5, and §64.6 have been completed in conjunction with the application and review process for this renewal of the Title V permit.

§64.7 - Operation of Approved Monitoring

This section stipulates the following:

- Requirements that the owner or operator 1) commence the monitoring upon receipt of a Title V permit that includes such monitoring, 2) properly maintain the monitoring system, and 3) conduct all monitoring in a continuous mode with the exception of outage periods associated with monitor malfunction and repair and with quality assurance and control activities
- Actions required by the owner or operator in response to excursions or exceedances
- A requirement for the owner or operator to document any need for improved monitoring based upon either an identification of a failure of the monitoring system to identify an excursion or exceedance or upon the results of compliance or performance testing that identifies a need to modify the monitoring

§64.8 - Quality Improvement Plan (QIP) Requirements

This section stipulates that the Administrator or the permitting authority may require that the facility develop and implement a QIP in the event of a determination of a need for improved monitoring pursuant to §64.7. §64.8 also identifies the minimum elements required in the QIP, and requires that the

facility implement the QIP as expeditiously as possible, with implementation not exceeding 180 days after the date that the need for implementation was identified unless the permitting authority is notified.

§64.9 - Reporting and Recordkeeping Requirements

This section stipulates the minimum reporting and recordkeeping requirements for facilities subject to 40 CFR 64.

§64.10 - Savings Provisions

This section states that the purpose of 40 CFR 64 is to require, as a part of the issuance of a Title V permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of 40 CFR 64. In addition, §64.10 states that nothing in 40 CFR 64 shall excuse an owner or operator from any other requirements of federal, state or local law or restrict or abrogate the authority of the Administrator or of the permitting authority.

- a. S-3523-1-8 – GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-2 (503 MW TOTAL PLANT NOMINAL RATING)

- b. S-3523-2-8 – GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-1 (503 MW TOTAL PLANT NOMINAL RATING)

These permit units have emissions limits for all five criteria pollutants (NO_x, SO_x, PM₁₀, CO, and VOC. There are no add-on controls for SO_x and PM₁₀, therefore CAM is not applicable for SO_x and PM₁₀.

Based on 40 CFR 64.2(b)(1)(vi), NO_x and CO emissions limits are exempt from CAM since the Part 70 permit already specifies a continuous compliance determination method for both NO_x and CO.

CAM is triggered for VOC since there is a VOC limit, the units have add-on controls in the form of an oxidation catalytic system and the post control potential to emit exceeds the major source threshold as demonstrated:

4 lb-VOC/hour emission limit x 8,760 hours/year = 35,040 lb-VOC/year

Since the post control potential to emit exceeds the major source threshold (20,000 lb-VOC/year), a 15-minute maximum monitoring interval is required.

The facility has elected to implement the requirements of CAM for these permit units by monitoring CO emissions, as a surrogate for VOC, using a CEMS. Existing source test data indicate no measurable VOC is present when CO is monitored and found to be within normal range. Existing permit conditions require CO monitoring at a maximum time interval of 15 minutes.

- Conditions 3 and 4 of the permit were modified to include reference to 40 CFR 64.3
- Conditions 5-8 were added to the permit to ensure compliance

c. S-3523-3-4 – FORCED DRAFT COOLING TOWER WITH 6 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

This unit only has an emission limit for PM. However, the unit does not have any add-on controls for PM. Therefore, CAM is not applicable.

d. S-3523-6-3 – 240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

This unit has emission limits for PM₁₀ and NO_x. However, the unit does not have any add-on controls for PM₁₀ or NO_x. Therefore, CAM is not applicable.

L. 40 CFR Part 72, Permits Regulation

Part 72 is applicable to the two combined cycle gas turbine units located at this facility (S-3523-1-9 and '-2-9). Minor technical and administrative changes have occurred in Part 72 since the initial Title V permit was issued for this facility. However, the existing permit conditions for these units are not affected by the changes since the conditions incorporate Part 72 requirements by reference only.

M. 40 CFR Part 75, Continuous Emission Monitoring

Part 75 is applicable to the two combined cycle gas turbine units located at this facility (S-3523-1-9 and '-2-9). Various technical and administrative changes have occurred in Part 75 since the initial Title V permit was issued for this facility. However, the existing permit conditions for these units are not affected by the changes since the conditions incorporate Part 75 requirements by reference only.

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

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

B. Obsolete Permit Shields From Existing Permit Requirements

Obsolete permit shields for existing permit units have been removed because the referenced rules have been superseded by the adoption of newer rules or amendments to existing rules and/or the referenced rules have been removed from the SIP. The existing permit shield was granted under a previous version of a rule, and that permit shield is no longer valid and must be removed from the permit requirements.

a. S-3523-6-3 – 240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

Condition 11 of the existing PTO granted a permit shield from Kern County Rule 407. Because this rule is not an applicable requirement included in the SIP, the permit shield is invalid and has been removed.

X. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

XI. ATTACHMENTS

- A. Draft Renewed Title V Operating Permit
- B. Previous Title V Operating Permit
- C. Detailed Facility List

ATTACHMENT A

Draft Renewed Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: S-3523-0-2

EXPIRATION DATE: 02/28/2011

FACILITY-WIDE REQUIREMENTS

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: ELK HILLS POWER LLC
Location: 4026 SKYLINE RD, TUPMAN, CA 93276
8-3523-0-2: Jul 27 2011 3:01PM - ROBERTSD

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

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

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

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

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

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

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-1-9

EXPIRATION DATE: 02/28/2011

SECTION: NE35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-2 (503 MW TOTAL PLANT NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with continuously recording non resettable fuel gas flowmeter. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
3. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [40 CFR 60.334(c), 40 CFR 64.3, District Rules 1080 and 4703, 6.2.1 and District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
4. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 64.3 and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
5. The monitoring of CO emissions with the CEMS shall serve as a surrogate for monitoring of VOC emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with CO concentration within the allowable range shall be indicative of VOC concentrations which are less than the allowed maximum. The relationship between concentration of VOC and concentration of CO shall be demonstrated at each annual source test. [40 CFR 64.3] Federally Enforceable Through Title V Permit
6. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64.7] Federally Enforceable Through Title V Permit
7. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64.9] Federally Enforceable Through Title V Permit
8. 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 64.8] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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9. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NOx concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District NSR Rule and District Rule 1080] Federally Enforceable Through Title V Permit
10. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
11. Upon notice by the District that the facility's CEM system 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 CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
12. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0 and SJ-99-02] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with 40 CFR 60.8 (e). [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
15. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
17. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall comply with all applicable requirements of 40 CFR 60.8 and 40 CFR Subpart Da. [District Rule 4001] Federally Enforceable Through Title V Permit
19. CTG and duct burner shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
20. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored at least annually using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(3); 40 CFR 60.48(g)(1) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Results of the CEM system shall be averaged over the applicable time period, using consecutive 15-minute sampling periods. [District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
22. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits. Shutdown is defined the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed two hours for a regular startup, and six hours for an extended startup, and one hour for a shutdown, per occurrence. [District NSR Rule, District Rules 4001 and 4703, 5.3.3 and SJ-99-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. During startup or shutdown of any gas turbine engine(s), combined emissions from both gas turbine engines' heat recovery steam generator exhausts (S-3523-1 and -2) shall not exceed any of the following: NO_x (as NO₂) - 400 lb and CO - 3600 lb in any one hour. If any CTG is in either startup or shutdown during any portion of a clock hour, the facility will be subject to the aforementioned limits during that clock hour. [District NSR Rule] Federally Enforceable Through Title V Permit
24. An extended startup shall be defined as a startup that occurs after the steam turbine has been shutdown for 72 hours or more. The duration of extended startup events shall not exceed 6 hours. [SJ-99-02] Federally Enforceable Through Title V Permit
25. During an extended startup, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 800 lb NO_x or 3600 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
26. During shutdown of CTG, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 102.5 lb NO_x or 222.0 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
27. Duct burning must not be employed during startup or shutdown events. [SJ-99-02] Federally Enforceable Through Title V Permit
28. Emission rates from CTG/HRSG, except during startup and/or shutdown, shall not exceed any of the following: PM₁₀ - 15.0 lb/hr, SO_x (as SO₂) - 3.6 lb/hr, NO_x (as NO₂) - 15.8 lb/hr and 2.5 ppmvd @ 15% O₂, VOC - 4.0 lb/hr and 2.0 ppmvd @ 15% O₂, CO - 12.5 lb/hr and 4 ppmvd @ 15% O₂, ammonia - 10 ppmvd @ 15% O₂. NO_x ppmv and lb/hr limits are a one-hour rolling average. Ammonia emission limit is a twenty-four hour rolling average. All other ppmv and lb/hr limits are three-hour rolling averages. [District NSR Rule, District Rules 4001, and 4703, 5.1.2, 5.2 and SJ-99-02] Federally Enforceable Through Title V Permit
29. Emission rates from CTG/HRSG shall not exceed any of the following: PM₁₀ - 360.0 lb/day, SO_x (as SO₂) - 86.4 lb/day, NO_x (as NO₂) - 752.0 lb/day, VOC - 184.0 lb/day, and CO - 3948.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Emission rates from both CTG/HRSG S-3523-1 and -2 combined shall not exceed any of the following: PM₁₀ - 720.0 lb/day, SO_x (as SO₂) - 172.8 lb/day, NO_x (as NO₂) - 1103.0 lb/day, VOC - 269.0 lb/day, and CO - 4297 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Annual emissions from both CTGs/HRSGs S-3523-1 and -2 combined calculated on a twelve consecutive month rolling basis shall not exceed any of the following: PM₁₀ - 261,960 lb/year, SO_x (as SO₂) - 57,468 lb/year, NO_x (as NO₂) - 335,022 lb/year, VOC - 64,478 lb/year, and CO - 831,008 lb/year. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
32. Emission rates from the duct burner shall not exceed any of the following limits: 0.20 lb-NO_x/MMBtu (expressed as NO₂); 0.20 lb-SO_x/MMBtu (expressed as SO₂); 0.03 lb-PM/MMBtu. [40 CFR 60.42(a)(1); 40 CFR 60.43(b)(2) and (g); 40 CFR 60.44(a)(1)] Federally Enforceable Through Title V Permit
33. NO_x emission rate from the duct burner shall not exceed 1.6 lb/MWh based on a 30-day rolling average. [40 CFR 60.44(d)(1)] Federally Enforceable Through Title V Permit
34. Each one-hour period will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. 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 NSR Rule] Federally Enforceable Through Title V Permit
35. 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 shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling emissions total to determine compliance with annual emissions shall be compiled from the twelve most recent calendar months. [District NSR Rule] Federally Enforceable Through Title V Permit
36. The monitoring of NO_x emissions from the duct burner shall be in accordance with the applicable requirements of 40 CFR Subpart Da. [40 CFR 60.49] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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37. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = ((a-(bxc/1,000,000)) x 1,000,000 / b) x d, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NO_x concentration ppmv at 15% O₂ across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH₃ CEM, the permittee must submit a monitoring plan for District review and approval [District Rules 2520, 9.3.2 and 4102] Federally Enforceable Through Title V Permit
38. Compliance with the short term emission limits (lb/hr and ppmv @ 15% O₂) shall be demonstrated annually by District witnessed in situ sampling of exhaust gas by a qualified independent source test firm at full load conditions as follows - NO_x: ppmvd @ 15% O₂ and lb/hr, CO: ppmvd @ 15% O₂ and lb/hr, VOC: ppmvd @ 15% O₂ and lb/hr, PM₁₀: lb/hr, and ammonia: ppmvd @ 15% O₂. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
39. Compliance with the startup NO_x, CO, and VOC mass emission limits shall be demonstrated for one of the CTGs (S-3523-1, or -2) at least once every five years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. [District Rule 1081] Federally Enforceable Through Title V Permit
40. Compliance with the emission limit for NO_x (lb-NO_x/MMBtu) for the duct burner shall be demonstrated per the methods of 40 CFR Subpart Da. [40 CFR 60.48Da (g)(1),(j) and (k)] Federally Enforceable Through Title V Permit
41. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60 Subpart Da, and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
42. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit
43. The following test methods shall be used EPA Methods 1-4, PM₁₀: EPA Method 5 (front half and back half), NO_x: EPA Method 7E, CO: EPA Method 10, O₂: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. 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, 4001, and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
44. Procedures and methods for determining emissions from the duct burner shall be in accordance with the applicable requirements of 40 CFR Subpart Da. [40 CFR 60.50] Federally Enforceable Through Title V Permit
45. The permittee shall maintain hourly records of NO_x, CO, and ammonia emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
46. The permittee shall maintain records of SO_x lb/hr, lb/day, and lb/twelve month rolling average emission. SO_x emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [40 CFR 60.48(g)(1) and District NSR Rule] Federally Enforceable Through Title V Permit
47. Permittee shall maintain the following records for the CTG: occurrence, duration, and type of any startup, shutdown, or malfunction; emission measurements; total daily and annual hours of operation; and hourly quantity of fuel used. [District NSR Rule and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
48. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, maintenance, adjustments, any period of non-operation of any continuous emissions monitor and emission measurements. [District NSR Rule and District Rule 4703 and 40 CFR 60.60.7(b) and SJ-99-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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49. Cylinder gas audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. 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
50. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective 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; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The reporting requirements pertaining to the testing and monitoring of the duct burner operation shall be in accordance with the applicable requirements of 40 CFR Subpart Da. [40 CFR 60.51] Federally Enforceable Through Title V Permit
52. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
53. The owners and operators of each affected source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
54. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
55. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
56. The owners and operators of each source and each affected unit at the source shall: (i) hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 72] Federally Enforceable Through Title V Permit
57. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72] Federally Enforceable Through Title V Permit
58. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
59. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
60. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
61. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) comply with the terms of an approved offset plan, as required by 40 CFR Part 72. [40 CFR 72] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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62. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
63. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
64. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-2-9

EXPIRATION DATE: 02/28/2011

SECTION: NE35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-1 (503 MW TOTAL PLANT NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with continuously recording non resettable fuel gas flowmeter. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
3. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [40 CFR 60.334(c), 40 CFR 64.3, District Rules 1080 and 4703, 6.2.1 and District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
4. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [40 CFR 64.3 and District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
5. The monitoring of CO emissions with the CEMS shall serve as a surrogate for monitoring of VOC emissions as required by 40 CFR 64 (Compliance Assurance Monitoring). Operation of the unit with CO concentration within the allowable range shall be indicative of VOC concentrations which are less than the allowed maximum. The relationship between concentration of VOC and concentration of CO shall be demonstrated at each annual source test. [40 CFR 64.3] Federally Enforceable Through Title V Permit
6. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64.7] Federally Enforceable Through Title V Permit
7. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64.9] Federally Enforceable Through Title V Permit
8. 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 64.8] Federally Enforceable Through Title V Permit

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9. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NOx concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District NSR Rule and District Rule 1080] Federally Enforceable Through Title V Permit
10. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
11. Upon notice by the District that the facility's CEM system 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 CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
12. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0 and SJ-99-02] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with 40 CFR 60.8 (e). [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
15. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
17. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall comply with all applicable requirements of 40 CFR 60.8 and 40 CFR Subpart Da. [District Rule 4001] Federally Enforceable Through Title V Permit
19. CTG and duct burner shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
20. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored at least annually using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(3); 40 CFR 60.48(g)(1) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. Results of the CEM system shall be averaged over the applicable time period, using consecutive 15-minute sampling periods. [District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
22. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits. Shutdown is defined the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed two hours for a regular startup, and six hours for an extended startup, and one hour for a shutdown, per occurrence. [District NSR Rule, District Rules 4001 and 4703, 5.3.3 and SJ-99-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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23. During startup or shutdown of any gas turbine engine(s), combined emissions from both gas turbine engines' heat recovery steam generator exhausts (S-3523-1 and -2) shall not exceed any of the following: NOx (as NO₂) - 400 lb and CO - 3600 lb in any one hour. If any CTG is in either startup or shutdown during any portion of a clock hour, the facility will be subject to the aforementioned limits during that clock hour. [District NSR Rule] Federally Enforceable Through Title V Permit
24. An extended startup shall be defined as a startup that occurs after the steam turbine has been shutdown for 72 hours or more. The duration of extended startup events shall not exceed 6 hours. [SJ-99-02] Federally Enforceable Through Title V Permit
25. During an extended startup, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 800 lb NOx or 3600 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
26. During shutdown of CTG, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 102.5 lb NOx or 222.0 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
27. Duct burning must not be employed during startup or shutdown events. [SJ-99-02] Federally Enforceable Through Title V Permit
28. Emission rates from CTG/HRSG, except during startup and/or shutdown, shall not exceed any of the following: PM₁₀ - 15.0 lb/hr, SOx (as SO₂) - 3.6 lb/hr, NOx (as NO₂) - 15.8 lb/hr and 2.5 ppmvd @ 15% O₂, VOC - 4.0 lb/hr and 2.0 ppmvd @ 15% O₂, CO - 12.5 lb/hr and 4 ppmvd @ 15% O₂, ammonia - 10 ppmvd @ 15% O₂. NOx ppmv and lb/hr limits are a one-hour rolling average. Ammonia emission limit is a twenty-four hour rolling average. All other ppmv and lb/hr limits are three-hour rolling averages. [District NSR Rule, District Rules 4001, and 4703, 5.1.2, 5.2 and SJ-99-02] Federally Enforceable Through Title V Permit
29. Emission rates from CTG/HRSG shall not exceed any of the following: PM₁₀ - 360.0 lb/day, SOx (as SO₂) - 86.4 lb/day, NOx (as NO₂) - 752.0 lb/day, VOC - 184.0 lb/day, and CO - 3948.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Emission rates from both CTG/HRSG S-3523-1 and -2 combined shall not exceed any of the following: PM₁₀ - 720.0 lb/day, SOx (as SO₂) - 172.8 lb/day, NOx (as NO₂) - 1103.0 lb/day, VOC - 269.0 lb/day, and CO - 4297 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Annual emissions from both CTGs/HRSGs S-3523-1 and -2 combined calculated on a twelve consecutive month rolling basis shall not exceed any of the following: PM₁₀ - 261,960 lb/year, SOx (as SO₂) - 57,468 lb/year, NOx (as NO₂) - 335,022 lb/year, VOC - 64,478 lb/year, and CO - 831,008 lb/year. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
32. Emission rates from the duct burner shall not exceed any of the following limits: 0.20 lb-NOx/MMBtu (expressed as NO₂); 0.20 lb-SOx/MMBtu (expressed as SO₂); 0.03 lb-PM/MMBtu. [40 CFR 60.42(a)(1); 40 CFR 60.43(b)(2) and (g); 40 CFR 60.44(a)(1)] Federally Enforceable Through Title V Permit
33. NOx emission rate from the duct burner shall not exceed 1.6 lb/MWh based on a 30-day rolling average. [40 CFR 60.44(d)(1)] Federally Enforceable Through Title V Permit
34. Each one-hour period will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. 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 NSR Rule] Federally Enforceable Through Title V Permit
35. 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 shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling emissions total to determine compliance with annual emissions shall be compiled from the twelve most recent calendar months. [District NSR Rule] Federally Enforceable Through Title V Permit
36. The monitoring of NOx emissions from the duct burner shall be in accordance with the applicable requirements of 40 CFR Subpart Da. [40 CFR 60.49] Federally Enforceable Through Title V Permit

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

37. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = ((a-(bxc/1,000,000)) x 1,000,000 / b) x d, where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NO_x concentration ppmv at 15% O₂ across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH₃ CEM, the permittee must submit a monitoring plan for District review and approval [District Rules 2520, 9.3.2 and 4102] Federally Enforceable Through Title V Permit
38. Compliance with the short term emission limits (lb/hr and ppmv @ 15% O₂) shall be demonstrated annually by District witnessed in situ sampling of exhaust gas by a qualified independent source test firm at full load conditions as follows - NO_x: ppmvd @ 15% O₂ and lb/hr, CO: ppmvd @ 15% O₂ and lb/hr, VOC: ppmvd @ 15% O₂ and lb/hr, PM₁₀: lb/hr, and ammonia: ppmvd @ 15% O₂. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
39. Compliance with the startup NO_x, CO, and VOC mass emission limits shall be demonstrated for one of the CTGs (S-3523-1, or -2) at least once every five years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. [District Rule 1081] Federally Enforceable Through Title V Permit
40. Compliance with the emission limit for NO_x (lb-NO_x/MMBtu) for the duct burner shall be demonstrated per the methods of 40 CFR Subpart Da. [40 CFR 60.48Da (g)(1),(j) and (k)] Federally Enforceable Through Title V Permit
41. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60 Subpart Da, and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
42. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit
43. The following test methods shall be used EPA Methods 1-4, PM₁₀: EPA Method 5 (front half and back half), NO_x: EPA Method 7E, CO: EPA Method 10, O₂: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. 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, 4001, and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
44. Procedures and methods for determining emissions from the duct burner shall be in accordance with the applicable requirements of 40 CFR Subpart Da. [40 CFR 60.50] Federally Enforceable Through Title V Permit
45. The permittee shall maintain hourly records of NO_x, CO, and ammonia emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
46. The permittee shall maintain records of SO_x lb/hr, lb/day, and lb/twelve month rolling average emission. SO_x emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [40 CFR 60.48(g)(1) and District NSR Rule] Federally Enforceable Through Title V Permit
47. Permittee shall maintain the following records for the CTG: occurrence, duration, and type of any startup, shutdown, or malfunction; emission measurements; total daily and annual hours of operation; and hourly quantity of fuel used. [District NSR Rule and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
48. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, maintenance, adjustments, any period of non-operation of any continuous emissions monitor and emission measurements. [District NSR Rule and District Rule 4703 and 40 CFR 60.60.7(b) and SJ-99-02] 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.

49. Cylinder gas audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. 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
50. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective 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; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
51. The reporting requirements pertaining to the testing and monitoring of the duct burner operation shall be in accordance with the applicable requirements of 40 CFR Subpart Da. [40 CFR 60.51] Federally Enforceable Through Title V Permit
52. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
53. The owners and operators of each affected source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
54. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
55. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
56. The owners and operators of each source and each affected unit at the source shall: (i) hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 72] Federally Enforceable Through Title V Permit
57. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72] Federally Enforceable Through Title V Permit
58. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
59. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
60. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
61. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) comply with the terms of an approved offset plan, as required by 40 CFR Part 72. [40 CFR 72] 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.

62. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
63. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
64. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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

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**San Joaquin Valley
Air Pollution Control District**

PERMIT UNIT: S-3523-3-4

EXPIRATION DATE: 02/28/2011

SECTION: NE35 TOWNSHIP: 30S RANGE: 23E

EQUIPMENT DESCRIPTION:

FORCED DRAFT COOLING TOWER WITH 6 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

PERMIT UNIT REQUIREMENTS

1. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]
2. Drift eliminator drift rate shall not exceed 0.0005%. [District NSR Rule] Federally Enforceable Through Title V Permit
3. PM10 emission rate shall not exceed 11.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. On a weekly basis, the Permittee shall record the circulating water recirculation rate and have an independent laboratory analyze a sample of the blowdown water to determine the total dissolved solids concentration in the blowdown water. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Compliance with the PM10 daily emission limit shall be demonstrated as follows: $PM10 \text{ lb/day} = \text{circulating water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * \text{correction factor}$. The correction factor shall range from 0.82 for a TDS of 1,000 ppm to 0.3 for a TDS of 5,000 ppm. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain records of calculated PM10 emission rate and all data used in the calculations. All records shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District NSR Rule, District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-6-3

EXPIRATION DATE: 02/28/2011

EQUIPMENT DESCRIPTION:

240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

PERMIT UNIT REQUIREMENTS

1. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
2. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [40 CFR 63 Subpart ZZZZ, District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
5. At all times, the engine and any associated air pollution control equipment and monitoring equipment shall be operated in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
6. The PM10 emissions rate shall not exceed 0.25 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District NSR Rule] Federally Enforceable Through Title V Permit
7. NOx emissions shall not exceed 4.4 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rule 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. This engine shall be operated only for testing and maintenance of the engine, required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [40 CFR 63 Subpart ZZZZ, District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rule 407 (Kern)] Federally Enforceable Through Title V Permit

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

12. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, and the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.). 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. [40 CFR 63 Subpart ZZZZ, District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following schedule of maintenance and inspection: Change oil and filter every 500 hours of operation or annually, whichever comes first; Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
14. The engine shall be operated and maintained according to the manufacturer's emission-related written instructions (including the after-treatment control device if any). Alternatively, a site-specific maintenance plan may be developed 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. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
15. Records of the maintenance conducted on the engine shall be maintained which demonstrate that operation and maintenance of the engine and after-treatment control device (if any) is according the facility's maintenance plan. [40 CFR 63 Subpart ZZZZ] Federally Enforceable Through Title V Permit
16. An emergency situation is an unscheduled electrical power outage caused by sudden and reasonably unforeseen natural disasters or sudden and reasonably unforeseen events beyond the control of the permittee. [District Rule 4702] Federally Enforceable Through Title V Permit
17. 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. [40 CFR 63 Subpart ZZZZ, District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

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ATTACHMENT B

Previous Title V Operating Permit

San Joaquin Valley Air Pollution Control District

FACILITY: S-3523-0-1

EXPIRATION DATE: 02/28/2011

FACILITY-WIDE REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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
3. 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
4. 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
5. 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 (3/21/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
6. 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, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
7. 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
8. 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
9. 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
10. 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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: ELK HILLS POWER LLC
Location: 4026 SKYLINE RD, TUPMAN, CA 93278
S-3523-0-1: Jul 28 2011 5:08PM -- ROBERTSD

11. 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
12. 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
13. 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
14. 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
15. 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
16. 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
17. 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
18. 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
19. 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
20. 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
21. 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
22. 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
23. 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 (11/15/01). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. 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 the Table of Standards of District Rule 4601 (10/31/01) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
25. All VOC-containing materials for architectural coatings subject to Rule 4601 (10/31/01) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
26. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (10/31/01). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
27. 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
28. 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 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
29. 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 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
30. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
31. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
32. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
33. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
34. 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 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
35. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 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 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
36. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

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

37. 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
38. 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
39. 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
40. 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), and Rule 111 (Kern, Tulare, Kings). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. 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 (11/15/01); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (10/31/01); 8021 (11/15/01); 8031 (11/15/01); 8041 (11/15/01); 8051 (11/15/01); 8061 (11/15/01); and 8071 (11/15/01). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
42. On August 31, 2006, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-1-8

EXPIRATION DATE: 02/28/2011

SECTION: NE35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-2 (503 MW TOTAL PLANT NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with continuously recording non resettable fuel gas flowmeter. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
3. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [40 CFR 60.334(c), District Rules 1080 and 4703, 6.2.1 and District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
4. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
5. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District NSR Rule and District Rule 1080] Federally Enforceable Through Title V Permit
6. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
7. Upon notice by the District that the facility's CEM system 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 CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

8. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0 and SJ-99-02] Federally Enforceable Through Title V Permit
9. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with 40 CFR 60.8 (e). [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
11. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
13. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Permittee shall comply with all applicable requirements of 40 CFR 60.8 and Subpart Da. [District Rule 4001] Federally Enforceable Through Title V Permit
15. CTG and duct burner shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
16. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored at least annually using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Results of the CEM system shall be averaged over the applicable time period, using consecutive 15-minute sampling periods. [District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
18. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits. Shutdown is defined the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed two hours for a regular startup, and six hours for an extended startup, and one hour for a shutdown, per occurrence. [District NSR Rule, District Rules 4001 and 4703, 5.3.3 and SJ-99-02] Federally Enforceable Through Title V Permit
19. During startup or shutdown of any gas turbine engine(s), combined emissions from both gas turbine engines' heat recovery steam generator exhausts (S-3523-1 and -2) shall not exceed any of the following: NOx (as NO2) - 400 lb and CO - 3600 lb in any one hour. If any CTG is in either startup or shutdown during any portion of a clock hour, the facility will be subject to the aforementioned limits during that clock hour. [District NSR Rule] Federally Enforceable Through Title V Permit
20. An extended startup shall be defined as a startup that occurs after the steam turbine has been shutdown for 72 hours or more. The duration of extended startup events shall not exceed 6 hours. [SJ-99-02] Federally Enforceable Through Title V Permit
21. During an extended startup, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 800 lb NOx or 3600 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
22. During shutdown of CTG, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 102.5 lb NOx or 222.0 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
23. Duct burning must not be employed during startup or shutdown events. [SJ-99-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. Emission rates from CTG/HRSG, except during startup and/or shutdown, shall not exceed any of the following: PM10 - 15.0 lb/hr, SOx (as SO2) - 3.6 lb/hr, NOx (as NO2) - 15.8 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 4.0 lb/hr and 2.0 ppmvd @ 15% O2, CO - 12.5 lb/hr and 4 ppmvd @ 15% O2, ammonia - 10 ppmvd @ 15% O2. NOx ppmv and lb/hr limits are a one-hour rolling average. Ammonia emission limit is a twenty-four hour rolling average. All other ppmv and lb/hr limits are three-hour rolling averages. [District NSR Rule, District Rules 4001, and 4703, 5.1.2, 5.2 and SJ-99-02] Federally Enforceable Through Title V Permit
25. Emission rates from CTG/HRSG shall not exceed any of the following: PM10 - 360.0 lb/day, SOx (as SO2) - 86.4 lb/day, NOx (as NO2) - 752.0 lb/day, VOC - 184.0 lb/day, and CO - 3948.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
26. Emission rates from both CTG/HRSG S-3523-1 and -2 combined shall not exceed any of the following: PM10 - 720.0 lb/day, SOx (as SO2) - 172.8 lb/day, NOx (as NO2) - 1103.0 lb/day, VOC - 269.0 lb/day, and CO - 4297 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Annual emissions from both CTGs/HRSGs S-3523-1 and -2 combined calculated on a twelve consecutive month rolling basis shall not exceed any of the following: PM10 - 261,960 lb/year, SOx (as SO2) - 57,468 lb/year, NOx (as NO2) - 335,022 lb/year, VOC - 64,478 lb/year, and CO - 831,008 lb/year. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
28. Each one-hour period will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. 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 NSR Rule] Federally Enforceable Through Title V Permit
29. 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 shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling emissions total to determine compliance with annual emissions shall be compiled from the twelve most recent calendar months. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(b \times c / 1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate (lb/hr) / 17 (lb/lb. mol), b = dry exhaust gas flow rate (lb/hr) / (29 (lb/lb. mol)), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee must submit a monitoring plan for District review and approval [District Rules 2520, 9.3.2 and 4102] Federally Enforceable Through Title V Permit
31. Compliance with the short term emission limits (lb/hr and ppmv @ 15% O2) shall be demonstrated annually by District witnessed in situ sampling of exhaust gas by a qualified independent source test firm at full load conditions as follows - NOx: ppmvd @ 15% O2 and lb/hr, CO: ppmvd @ 15% O2 and lb/hr, VOC: ppmvd @ 15% O2 and lb/hr, PM10: lb/hr, and ammonia: ppmvd @ 15% O2. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
32. Compliance with the startup NOx, CO, and VOC mass emission limits shall be demonstrated for one of the CTGs (S-3523-1, or -2) at least once every five years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60 Subpart Da, and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
34. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

35. The following test methods shall be used EPA Methods 1-4, PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E, CO: EPA Method 10, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. 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, 4001, and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
36. The permittee shall maintain hourly records of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling average records of NOx and CO emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
37. The permittee shall maintain records of SOx lb/hr, lb/day, and lb/twelve month rolling average emission. SOx emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District NSR Rule] Federally Enforceable Through Title V Permit
38. Permittee shall maintain the following records for the CTG: occurrence, duration, and type of any startup, shutdown, or malfunction; emission measurements; total daily and annual hours of operation; and hourly quantity of fuel used. [District NSR Rule and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
39. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, maintenance, adjustments, any period of non-operation of any continuous emissions monitor and emission measurements. [District NSR Rule and District Rule 4703 and 40 CFR 60.7(b) and SJ-99-02] Federally Enforceable Through Title V Permit
40. Cylinder gas audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. 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
41. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective 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; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
42. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
43. The owners and operators of each affected source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
44. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
45. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
46. The owners and operators of each source and each affected unit at the source shall: (i) hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 72] Federally Enforceable Through Title V Permit
47. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

48. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
49. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
50. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
51. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) comply with the terms of an approved offset plan, as required by 40 CFR Part 72. [40 CFR 72] Federally Enforceable Through Title V Permit
52. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
53. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
54. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-2-8

EXPIRATION DATE: 02/28/2011

SECTION: NE35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-1 (503 MW TOTAL PLANT NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Combustion turbine generator (CTG) and electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents no greater than 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with continuously recording non resettable fuel gas flowmeter. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
3. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO_x, CO, and O₂. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [40 CFR 60.334(c), District Rules 1080 and 4703, 6.2.1 and District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
4. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
5. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO_x concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District NSR Rule and District Rule 1080] Federally Enforceable Through Title V Permit
6. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
7. Upon notice by the District that the facility's CEM system 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 CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit

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

8. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0 and SJ-99-02] Federally Enforceable Through Title V Permit
9. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with 40 CFR 60.8 (e). [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
11. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
13. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Permittee shall comply with all applicable requirements of 40 CFR 60.8 and Subpart Da. [District Rule 4001] Federally Enforceable Through Title V Permit
15. CTG and duct burner shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry scf of natural gas. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
16. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored at least annually using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Results of the CEM system shall be averaged over the applicable time period, using consecutive 15-minute sampling periods. [District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
18. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmv emission limits. Shutdown is defined the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed two hours for a regular startup, and six hours for an extended startup, and one hour for a shutdown, per occurrence. [District NSR Rule, District Rules 4001 and 4703, 5.3.3 and SJ-99-02] Federally Enforceable Through Title V Permit
19. During startup or shutdown of any gas turbine engine(s), combined emissions from both gas turbine engines' heat recovery steam generator exhausts (S-3523-1 and -2) shall not exceed any of the following: NOx (as NO2) - 400 lb and CO - 3600 lb in any one hour. If any CTG is in either startup or shutdown during any portion of a clock hour, the facility will be subject to the aforementioned limits during that clock hour. [District NSR Rule] Federally Enforceable Through Title V Permit
20. An extended startup shall be defined as a startup that occurs after the steam turbine has been shutdown for 72 hours or more. The duration of extended startup events shall not exceed 6 hours. [SJ-99-02] Federally Enforceable Through Title V Permit
21. During an extended startup, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 800 lb NOx or 3600 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
22. During shutdown of CTG, the combined emissions from both the CTG and HRSG exhausts shall not exceed either 102.5 lb NOx or 222.0 lb CO per event. [SJ-99-02] Federally Enforceable Through Title V Permit
23. Duct burning must not be employed during startup or shutdown events. [SJ-99-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

24. Emission rates from CTG/HRSG, except during startup and/or shutdown, shall not exceed any of the following: PM10 - 15.0 lb/hr, SOx (as SO2) - 3.6 lb/hr, NOx (as NO2) - 15.8 lb/hr and 2.5 ppmvd @ 15% O2, VOC - 4.0 lb/hr and 2.0 ppmvd @ 15% O2, CO - 12.5 lb/hr and 4 ppmvd @ 15% O2, ammonia - 10 ppmvd @ 15% O2. NOx ppmv and lb/hr limits are a one-hour rolling average. Ammonia emission limit is a twenty-four hour rolling average. All other ppmv and lb/hr limits are three-hour rolling averages. [District NSR Rule, District Rules 4001, and 4703, 5.1.2, 5.2 and SJ-99-02] Federally Enforceable Through Title V Permit
25. Emission rates from CTG/HRSG shall not exceed any of the following: PM10 - 360.0 lb/day, SOx (as SO2) - 86.4 lb/day, NOx (as NO2) - 752.0 lb/day, VOC - 184.0 lb/day, and CO - 3948.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
26. Emission rates from both CTG/HRSG S-3523-1 and -2 combined shall not exceed any of the following: PM10 - 720.0 lb/day, SOx (as SO2) - 172.8 lb/day, NOx (as NO2) - 1103.0 lb/day, VOC - 269.0 lb/day, and CO - 4297 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Annual emissions from both CTGs/HRSGs S-3523-1 and -2 combined calculated on a twelve consecutive month rolling basis shall not exceed any of the following: PM10 - 261,960 lb/year, SOx (as SO2) - 57,468 lb/year, NOx (as NO2) - 335,022 lb/year, VOC - 64,478 lb/year, and CO - 831,008 lb/year. [District NSR Rule and SJ-99-02] Federally Enforceable Through Title V Permit
28. Each one-hour period will commence on the hour. The three-hour average will be compiled from the three most recent one-hour periods. 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 NSR Rule] Federally Enforceable Through Title V Permit
29. 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 shall commence at the beginning of the first day of the month. The twelve-consecutive-month rolling emissions total to determine compliance with annual emissions shall be compiled from the twelve most recent calendar months. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = $((a-(b \times c / 1,000,000)) \times 1,000,000 / b) \times d$, where a = ammonia injection rate (lb/hr) / 17 (lb/lb. mol), b = dry exhaust gas flow rate (lb/hr) / (29 (lb/lb. mol)), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District, to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee must submit a monitoring plan for District review and approval [District Rules 2520, 9.3.2 and 4102] Federally Enforceable Through Title V Permit
31. Compliance with the short term emission limits (lb/hr and ppmv @ 15% O2) shall be demonstrated annually by District witnessed in situ sampling of exhaust gas by a qualified independent source test firm at full load conditions as follows - NOx: ppmvd @ 15% O2 and lb/hr, CO: ppmvd @ 15% O2 and lb/hr, VOC: ppmvd @ 15% O2 and lb/hr, PM10: lb/hr, and ammonia: ppmvd @ 15% O2. Sample collection to demonstrate compliance with ammonia emission limit shall be based on three consecutive test runs of thirty minutes each. [District Rule 1081 and SJ-99-02] Federally Enforceable Through Title V Permit
32. Compliance with the startup NOx, CO, and VOC mass emission limits shall be demonstrated for one of the CTGs (S-3523-1, or -2) at least once every five years by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. [District Rule 1081] Federally Enforceable Through Title V Permit
33. Any gas turbine with an intermittently operated auxiliary burner shall demonstrate compliance with the auxiliary burner both on and off. [40 CFR 60 Subpart Da, and District Rule 4703, 6.3.3] Federally Enforceable Through Title V Permit
34. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. Official test results and field data collected by source tests required by conditions on this permit shall be submitted to the District within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

35. The following test methods shall be used EPA Methods 1-4, PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E, CO: EPA Method 10, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. 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, 4001, and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
36. The permittee shall maintain hourly records of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling average records of NOx and CO emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
37. The permittee shall maintain records of SOx lb/hr, lb/day, and lb/twelve month rolling average emission. SOx emissions shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District NSR Rule] Federally Enforceable Through Title V Permit
38. Permittee shall maintain the following records for the CTG: occurrence, duration, and type of any startup, shutdown, or malfunction; emission measurements; total daily and annual hours of operation; and hourly quantity of fuel used. [District NSR Rule and 4703 and SJ-99-02] Federally Enforceable Through Title V Permit
39. Permittee shall maintain the following records for the continuous emissions monitoring system (CEMS): the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, maintenance, adjustments, any period of non-operation of any continuous emissions monitor and emission measurements. [District NSR Rule and District Rule 4703 and 40 CFR 60.7(b) and SJ-99-02] Federally Enforceable Through Title V Permit
40. Cylinder gas audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. 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
41. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective 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; and a negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
42. All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
43. The owners and operators of each affected source shall have an Acid Rain permit and operate in compliance with all permit requirements. [40 CFR 72] Federally Enforceable Through Title V Permit
44. The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. [40 CFR 75] Federally Enforceable Through Title V Permit
45. The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program. [40 CFR 75] Federally Enforceable Through Title V Permit
46. The owners and operators of each source and each affected unit at the source shall: (i) hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and (ii) comply with the applicable Acid Rain emissions limitations for sulfur dioxide. [40 CFR 72] Federally Enforceable Through Title V Permit
47. Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act. [40 CFR 72] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

48. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72] Federally Enforceable Through Title V Permit
49. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 73, prior to the calendar year for which the allowance was allocated. [40 CFR 73] Federally Enforceable Through Title V Permit
50. The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77. [40 CFR 77] Federally Enforceable Through Title V Permit
51. The owners and operators of an affected unit that has excess emissions in any calendar year shall: (i) pay without demand the penalty required, and pay up on demand the interest on that penalty; and (ii) comply with the terms of an approved offset plan, as required by 40 CFR Part 72. [40 CFR 72] Federally Enforceable Through Title V Permit
52. The owners and operators of the each affected unit at the source shall keep on site the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site beyond such five-year period until such documents are superceded because of the submission of a new certificate of representation changing the designated representative. [40 CFR 72] Federally Enforceable Through Title V Permit
53. The owners and operators of each affected unit at the source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the Administrator or permitting authority; (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission that demonstrates compliance with the requirements of the Acid Rain Program. [40 CFR 72, 40 CFR 75] Federally Enforceable Through Title V Permit
54. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 75 Subpart I. [40 CFR 75] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-3-3

EXPIRATION DATE: 02/28/2011

SECTION: NE35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

FORCED DRAFT COOLING TOWER WITH 6 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

PERMIT UNIT REQUIREMENTS

1. No hexavalent chromium containing compounds shall be added to cooling tower circulating water. [District Rule 7012]
2. Drift eliminator drift rate shall not exceed 0.0005%. [District NSR Rule] Federally Enforceable Through Title V Permit
3. PM10 emission rate shall not exceed 11.7 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. On a weekly basis, the Permittee shall record the circulating water recirculation rate and have an independent laboratory analyze a sample of the blowdown water to determine the total dissolved solids concentration in the blowdown water. [District Rules 1081 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Compliance with the PM10 daily emission limit shall be demonstrated as follows: $PM10 \text{ lb/day} = \text{circulating water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * \text{correction factor}$. The correction factor shall range from 0.82 for a TDS of 1,000 ppm to 0.3 for a TDS of 5,000 ppm. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Permittee shall maintain records of calculated PM10 emission rate and all data used in the calculations. All records shall be maintained for a period of five years and shall be made readily available for District inspection upon request. [District NSR Rule, District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3523-6-2

EXPIRATION DATE: 02/28/2011

EQUIPMENT DESCRIPTION:

240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

PERMIT UNIT REQUIREMENTS

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
2. Engine shall be equipped with an operational non-resettable hour meter. [District NSR Rule and District Rule 4702, 4.3.1.3] Federally Enforceable Through Title V Permit
3. This engine shall be equipped with either a positive crankcase ventilation (PCV) system that recirculates crankcase emissions into the air intake system for combustion, or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
4. The PM10 emissions rate shall not exceed 0.25 g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District NSR Rule] Federally Enforceable Through Title V Permit
5. NOx emissions shall not exceed 4.4 g/hp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
8. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 77 hours per calendar year. [District NSR Rule and District Rule 4702, 4.3.1.2] Federally Enforceable Through Title V Permit
9. If the IC engine is fired on Air Resources Board regulated diesel fuel, with a supplier certified sulfur content less than 0.05% by weight, the operator shall maintain copies of all fuel invoices and supplier certifications. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rule 407 (Kern)] Federally Enforceable Through Title V Permit
11. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rule 407 (Kern). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
12. This engine shall be operated using only CARB certified diesel fuel. [17 CCR 93115]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

13. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.) and the sulfur content of the diesel fuel used. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 4701 and 4702, and 17 CCR 93115]
14. 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. [17 CCR 93115]

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

ATTACHMENT C

Detailed Facility List

Detailed Facility Report
For Facility=3523 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

ELK HILLS POWER LLC 4026 SKYLINE RD TUPMAN, CA 93276	FAC # STATUS: TELEPHONE:	S 3523 A 6617632700	TYPE: TOXIC ID:	TitleV	EXPIRE ON: AREA: INSP. DATE:	02/28/2011 6 / 10/11
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-3523-1-8	251.5 MW electrical generation	3020-08B H	1	13,208.00	13,208.00	A	GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-2 (503 MW TOTAL PLANT NOMINAL RATING)
S-3523-2-8	251.5 MW electrical generation	3020-08B H	1	13,208.00	13,208.00	A	GE FRAME 7 MODEL PG7241FA NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, 250.5 MMBTU/HR NATURAL GAS FIRED DUCT BURNER, HEAT RECOVERY STEAM GENERATOR, SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYST, AND STEAM TURBINE SHARED WITH S-3523-1 (503 MW TOTAL PLANT NOMINAL RATING)
S-3523-3-3	part of electrical generation unit	999-99	1	0.00	0.00	A	FORCED DRAFT COOLING TOWER WITH 6 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR
S-3523-6-2	240 BHP diesel-fired IC engine	3020-10 C	1	240.00	240.00	A	240 HP CUMMINS MODEL 6CTA 8.3 F2 DIESEL-FIRED IC ENGINE DRIVING EMERGENCY FIRE WATER PUMP

Number of Facilities Reported: 1