



NOV 01 2011

Gary Quantock
La Paloma Generating Company
P.O. Box 175
McKittrick, CA 93251

**Re: Notice of Preliminary Decision - Title V Permit Renewal
District Facility # S-3412
Project # 1094178**

Dear Mr. Quantock:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for La Paloma Generating Company for its electrical generating facility near McKittick, California.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

Attachments

C: William Jones, Permit Services Engineer

Seyed 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
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34946 Flyover Court
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NOV 01 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-3412
Project # 1094178**

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 La Paloma Generating Company for its electrical generating facility near McKittick, California.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

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NOV 01 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-3412
Project # 1094178**

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 La Paloma Generating Company for its electrical generating facility near McKittick, California.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,

David Warner
Director of Permit Services

Attachments

C: William Jones, Permit Services Engineer

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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 La Paloma Generating Company for its electrical generating facility near McKittick, California.

The District's analysis of the legal and factual basis for this proposed action, project #1094178, 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. Leonard Scandura, Permit Services Manager, at (661) 392-5500. 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
La Paloma Generating Company, LLC (LPGC)
S-3412**

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TITLE V PERMIT RENEWAL EVALUATION

Engineer: William Jones
Date: 10/26/11

Facility Number: S-3412
Facility Name: La Paloma Generating Company
Mailing Address: P.O. Box 175
McKittrick, CA 93251

Contact Name: Zenis Walley
Phone: (661) 762-6003

Responsible Official: Gary Quantock
Title: Vice President

Project # : S-1094178
Deemed Complete: 8/25/9

I. PROPOSAL

La Paloma Generating Company was issued a Title V permit on December 30, 2004. 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

The La Paloma Generating Plant is located at 1760 West Skyline Road (NE/4 Section 27, Township 30S, Range 22E) near McKittrick in Kern County, CA.

III. EQUIPMENT LISTING

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

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

V. SCOPE OF EPA AND PUBLIC REVIEW

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

VI. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

A. Rules Updated

- District Rule 2020, Exemptions (Amended December 20, 2007) ←
- District Rule 2201, New And Modified Stationary Source Review Rule (Amended April 21, 2011)
- District Rule 4101, Visible Emissions (Amended February 17, 2005)
- District Rule 4306, Boilers, Steam Generators, And Process Heaters – Phase 3 (Amended October 16, 2008)
- District Rule 4320, Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr, (Adopted October 16, 2008)
- District Rule 4601, Architectural Coatings (Amended December 17, 2009)
- District Rule 4702, Internal Combustion Engines – Phase 2 (Amended January 18, 2007)
- District Rule 4703, Stationary Gas Turbines (Amended September 20, 2007)
- 40 CFR Part 60, Subpart A, Performance tests (Amended September 13, 2010)
- 40 CFR Part 60 Subpart A, Monitoring requirements (Amended June 13, 2007)
- 40 CFR Part 60, Subpart GG, Test methods and procedures (Amended February 24, 2006)
- 40 CFR Part 72, Subpart A, Acid Rain Program General Provisions (Amended September 13, 2010)
- 40 CFR Part 73, Subpart C, Recordation in accounts (Amended September 13, 2010)

- 40 CFR Part 75, Subpart C, Continuous Emission Monitoring (Amended September 13, 2010)
- 40 CFR Part 77, Subchapter C, Offset plans for excess emissions of sulfur dioxide. (Amended September 13, 2010)
- 40 CFR Part 82, Subparts B and F, Stratospheric Ozone (Amended September 13, 2010)

B. Rules Not Updated

For this facility, the following are federally enforceable but have not been updated since the initial Title V permit and will not be discussed in further detail:

- District Rule 1080, Stack Monitoring (Amended December 17, 1992)
- District Rule 1081, Source Sampling (Amended December 16, 1993)
- District Rule 2010, Permits Required (Amended December 17, 1992)
- District Rule 2031, Transfer Of Permits (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 4201, Particulate Matter Concentration (Amended December 17, 1992)
- District Rule 4202, Particulate Matter - Emission Rate (Amended December 17, 1992)
- District Rule 4301, Fuel Burning Equipment (Amended December 17, 1992)
- District Rule 4305, Boilers, Steam Generators, and Process Heaters - Phase 2 (Amended August 21, 2003)
- District Rule 4701, Internal Combustion Engines - Phase 1 (Amended August 21, 2003)
- District Rule 8011, General Requirements (Amended August 19, 2004)
- District Rule 8021, Construction, Demolition, Excavation, Extraction, And Other Earthmoving Activities (Amended August 19, 2004)
- District Rule 8031, Bulk Materials (Amended August 19, 2004)
- District Rule 8041, Carryout And Track Out (Amended August 19, 2004)
- District Rule 8051, Open Areas (Amended August 19, 2004)
- District Rule 8061, Paved And Unpaved Roads (Amended August 19, 2004)

- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (Amended September 16, 2004)
- 40 CFR Part 60 Subpart GG, Standard for sulfur dioxide. (Amended July 8, 2004)
- 40 CFR Part 60, Subpart GG, Standard for nitrogen oxides, (Amended July 8, 2004)
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos (Amended July 20, 2004)

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".

The following are not federally enforceable and will not be discussed in further detail:

- District Rule 1070, Inspections (Amended December 17, 1992)
- District Rule 1100, Equipment Breakdown (Amended December 17, 1992)
- District Rule 1160, Emission Statements (Adopted November 18, 1992)
- District Rule 2040, Applications (Amended December 17, 1992)
- District Rule 2540, Acid Rain Program (Adopted November 13, 1997)
- District Rule 4001, New Source Performance Standards (Amended April 14, 1999)
- District Rule 4102, Nuisance (Amended December 17, 1992)
- District Rule 4801, Sulfur Compounds (Amended December 17, 1992)
- District Rule 7012, Hexavalent Chromium - Cooling Towers (Amended December 17, 1992)
- EPA Prevention Of Significant Deterioration (PSD) Permit (NSR 4-4-4, SJ 98-01)

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. Rule 2020, Exemptions

This rule specifies emissions units that are not required to obtain an Authority to Construct or Permit to Operate. In addition this rule specifies the recordkeeping requirements to verify the exemption and outlines the compliance schedule for emissions units that lose the exemption after installation. The contents of this rule apply to any source that emits or may emit air contaminants and was amended in August 18, 2011. The amendments to this rule do not have any affect on current permit requirements and will therefore not be addressed in this evaluation.

B. 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 3.25, defined as an action including at least one of the following items:

- 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.
- 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.
- 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.
- Addition of any new emissions unit which is subject to District permitting requirements.
- 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.

The amendments to this rule do not affect the overall applicability or requirements as they are applied to sources at this facility. Since the changes included in the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

C. Rule 4101, Visible Emissions

The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere. The provisions of this rule apply to any source operation which emits or may emit air contaminants. The requirements of this rule were amended on February 17, 2005.

The requirements of section 5 of this rule dictate that a person shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart as published by the United States Bureau of Mines.
- Of such opacity as to obscure an observer's view to a degree equal to or greater than the No. 1 on the Ringelmann chart smoke.

The following permit requirement will remain on the title V permit to ensure compliance with this rule:

- a. S-3412-8-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)
 - i. Condition 1 on the proposed permit assures compliance with this rule.
- b. S-3412-9-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)
 - i. Condition 1 on the proposed permit assures compliance with this rule.
- c. S-3412-10-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)
 - i. Condition 1 on the proposed permit assures compliance with this rule.

- d. S-3412-11-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)
 - i. Condition 1 on the proposed permit assures compliance with this rule.

- e. S-3412-14-3: 240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP
 - i. Condition 1 on the proposed permit assures compliance with this rule.

D. Rule 4306, Boilers, Steam Generators, And Process Heaters – Phase 3

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

This rule applies to any boiler, steam generator or process heater, with a rated heat input greater than 5 million Btu per hour that is fired with gaseous and/or liquid fuels. The requirements of this rule were amended on October 16, 2008.

The requirements of section 5.1 outline the NOx and CO Emission Limits for emission units subject to this rule. This section dictates that NOx and CO emissions limits for unites that are not limited to less than 9 billion Btu per calendar year heat input.

The following conditions will remain on the permit to insure compliance with this requirement.

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 2 on the proposed permit assures compliance with this rule.

Section 5.4 outlines the Monitoring Provisions requirements for equipment subject to this rule. The requirements of this section require the operator to install and maintain an operational APCO approved Continuous Emissions Monitoring System (CEMS) for NOx, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. An APCO

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

- Periodic NO_x and CO exhaust emission concentrations,
- Periodic exhaust oxygen concentration,
- Flow rate of reducing agent added to exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Periodic flue gas recirculation rate,
- Other operational characteristics.

In addition the requirements of this rule call for the installation and maintain an operational non-resettable, totalizing mass or volumetric flow meter in each fuel line to each unit.

The following conditions will remain on the permit to insure compliance with this requirement.

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

- i. Condition 6, 7, 8, and 9 on the proposed permit assure compliance with this rule.

The content of section 5.5 outlined the acceptable methods of measurement, and calculation procedures for the determination of compliance with the requirements of this rule. The requirements of this section require that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in rule.

The following conditions will remain on the permit to insure compliance with this requirement.

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

- i. Condition 13 on the proposed permit assures compliance with this rule.

Section 5.5.2 requires that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition

The following conditions will remain on the permit to insure compliance with this requirement.

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB
NATURAL GAS FIRED BOILER

- i. Condition 11 on the proposed permit assures compliance with this rule.

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

The following conditions will remain on the permit to insure compliance with this requirement.

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB
NATURAL GAS FIRED BOILER

- i. Condition 18 on the proposed permit assure compliance with this rule.

The requirements of this section 6.1. outline the recordkeeping requirements of this rule. This section requires that all records shall be maintained for five calendar years and shall be made available to the APCO upon request.

The following conditions will remain on the permit to insure compliance with this requirement.

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB
NATURAL GAS FIRED BOILER

- i. Condition 25 on the proposed permit assures compliance with this rule.

Section 6.2 outlines the test method requirements for compliance with the regulations set by rule 4306. The requirements of this rule dictate that the following test methods may be used unless otherwise approved by the APCO and EPA:

- Fuel hhv shall be certified by third party fuel supplier or determined by:
 - i. ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels;
 - ii. ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels.
- Oxides of nitrogen (ppmv) - EPA Method 7E, or ARB Method 100.
- Carbon monoxide (ppmv) - EPA Method 10, or ARB Method 100.
- Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.
- NO_x Emission Rate (Heat Input Basis) - EPA Method 19.
- Stack gas velocities - EPA Method 2.
- Stack gas moisture content - EPA Method 4.

The following conditions will remain on the permit to insure compliance with this requirement.

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Conditions 15, 16, 17, and 23 on the proposed permit assure compliance with this rule.

The requirements of section 6.3 state that each unit shall be source tested to determine compliance with the applicable emission limits at least once every 12 months. Units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test for up to 36 months. During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer to ensure compliance with the applicable emission limits

The following permit requirements were added and/or revised to ensure compliance with this rule:

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

- i. Condition 12 on the proposed permit assure compliance with this rule.

E. Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBTU/HR (Adopted October 16, 2008)

The purpose of this rule is to limit emissions of oxides of nitrogen (NO_x), carbon monoxide (CO), oxides of sulfur (SO₂), and particulate matter 10 microns or less (PM₁₀) from boilers, steam generators, and process heaters.

Section 5.1 states that operators of a unit(s) shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

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

Section 5.2 outlines the NO_x and CO emission limits for compliance. This section dictates that units shall not be operated in a manner which exceeds the applicable NO_x emissions limit specified in this rule. Nor shall they be operated in a manner to which exceeds a carbon monoxide (CO) emissions limit of 400 ppmv, and 40 ppmv NO_x.

The following permit requirement will remain on the title V permit to ensure compliance with this rule:

a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

- i. Condition 2 on the proposed permit assure compliance with this rule.

Section 5.4 outlines the particulate matter control requirements for compliance with this rule. The requirements of this section dictate that an operator shall comply with one of the following requirements:

- On and after the applicable NOx compliance deadline specified in Section 5.2 Table 1, operators shall fire units exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;
- On and after the applicable NOx compliance deadline specified in Section 5.2 Table 1, operators shall limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or

The following permit requirement will remain on the title V permit to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 5, 20, 21, and 22 on the proposed permit assure compliance with this rule.

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

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 32, 33 and 34 on the proposed permit assure compliance with this rule.

Section 5.7.1 dictates that the operator of any unit subject to the applicable emission limits in section 5.2 shall install and maintain an operational APCO approved continuous emissions monitoring system (CEMS) for NOx, CO, and oxygen, or implement an APCO-approved Alternate Monitoring System. An APCO approved CEMS shall comply with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13 (except subsection h), 40 CFR Part 60 Appendix B (Performance Specifications) and 40 CFR Part 60 Appendix F

(Quality Assurance Procedures), and applicable provisions of Rule 1080 (Stack Monitoring). An APCO-approved Alternate Monitoring System shall monitor one or more of the following:

- Periodic NO_x and CO exhaust emission concentrations,
- Periodic exhaust oxygen concentration,
- Flow rate of reducing agent added to exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Periodic flue gas recirculation rate, or
- Other operational characteristics.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 6 and 7, on the proposed permit assure compliance with this rule.

Section 5.7.2 requires that the operator shall monitor, at least on a monthly basis, the operational characteristic(s) recommended by the manufacturer and approved by the APCO.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 6 and 7, on the proposed permit assure compliance with this rule.

Section 5.7.4 requires that units operated at seasonal sources that are subject to the requirements of 40 CFR 60, Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) may implement an APCO approved parametric monitoring system (PMS) in lieu of a CEMS for compliance with federal emission limits provided all of the following apply:

- The boiler is fired solely on California PUC quality natural gas, and
- The applicable District emission limit for NO_x is more stringent than the limit specified in 40 CFR Part 60, Subpart Db.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 5 on the proposed permit assure compliance with this rule.

Section 5.7.6.1 requires that operators complying with 5.4.1.2 shall provide an annual fuel analysis to the District unless a more frequent sampling and reporting period is included in the Permit To Operate. Sulfur analysis shall be performed in accordance with the test methods in Section 6.2.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
 - i. Condition 33 on the proposed permit assure compliance with this rule.

Section 6.2 outlines the acceptable test methods for the determination of emissions levels of criteria pollutant for compliance with the requirements of this rule. The following test methods shall be used unless otherwise approved by the APCO and EPA:

- Fuel hhv shall be certified by third party fuel supplier or determined by:
 - i. ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels;
 - ii. ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels.
- Oxides of nitrogen (ppmv) - EPA Method 7E, or ARB Method 100.
- Carbon monoxide (ppmv) - EPA Method 10, or ARB Method 100.
- Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.
- NO_x Emission Rate (Heat Input Basis) - EPA Method 19.
- Stack gas velocities - EPA Method 2.
- Stack gas moisture content - EPA Method 4.
- SO_x Test Methods
 - i. Oxides of sulfur – EPA Method 6C, EPA Method 8, or ARB Method 100

- ii. The SOx emission control system efficiency shall be determined using the following:

$$\% \text{ Control Efficiency} = [(C_{\text{SO}_2, \text{inlet}} - C_{\text{SO}_2, \text{outlet}}) / C_{\text{SO}_2, \text{inlet}}] \times 100$$

Where:

$C_{\text{SO}_2, \text{inlet}}$ = concentration of SOx (expressed as SO₂) at the inlet side of the SOx emission control system, in lb/dscf

$C_{\text{SO}_2, \text{outlet}}$ = concentration of SOx (expressed as SO₂) at the outlet side of the SOx emission control system, in lb/dscf

- Determination of total sulfur as hydrogen sulfide (H₂S) content – EPA Method 11 or EPA Method 15, as appropriate.
- Sulfur content of liquid fuel – American Society for Testing and Materials (ASTM) D 6920-03 or ASTM D 5453-99

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
- i. Condition 15, 16 and 17 on the proposed permit assure compliance with this rule.

Section 6.4 outlines the Emission Control Plan (ECP) requirements for compliance with this rule. The facility has submitted an Emission Control plan in compliance with the requirements of this section.

F. Rule 4601 Architectural Coatings (Adopted April 11, 1991; Amended December 17, 2009)

This rule limits the emissions of VOCs from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). The rule was amended on December 17, 2009. Since the changes included in the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

G. Rule 4702 Internal Combustion Engines – Phase 2 (Adopted August 21, 2003; Amended January 18, 2007)

This rule limits the emissions of nitrogen oxides (NOX), carbon monoxide (CO), and volatile organic compounds (VOC) from spark-ignited internal combustion engines. The requirements of this rule were amended 1/8/07

last amended 8-18-11

Section 4.2.1 outlines the condition that may apply that would allow an operation to be exempt from certain requirement of this rule. The section dictates that except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating no resettable elapsed time meter. This section further clarifies that In lieu of operating a no resettable elapsed time meter, the operator may use an alternative device, method, or technique, in determining operating time, provided that the alternative is approved by the APCO and EPA and is allowed by the Permit-to-Operate or Permit-Exempt Equipment Registration. The operator must demonstrate that the alternative device, method, or technique is equivalent to using a no resettable elapsed time meter.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-8-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)
 - i. Condition 7 on the proposed permit assure compliance with this rule.
- b. S-3412-10-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)
 - i. Condition 7 on the proposed permit assure compliance with this rule.
- c. S-3412-11-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)
 - i. Condition 7 on the proposed permit assure compliance with this rule.

Section 4.3 dictates that except for the administrative requirements of Section 6.2.3, the requirements of this rule shall not apply to any internal combustion engine that meet the following conditions:

- 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 time meter, for periodic maintenance, periodic readiness testing, and readiness testing during and after repair work of the engine; and
- The engine is operated with an operational nonresettable elapsed time meter. In lieu of installing a nonresettable elapsed time meter, the operator of an engine may use an alternative device, method, or technique, in determining operating time provided that the alternative is approved by the APCO and EPA. The operator of the engine shall properly maintain and operate the nonresettable elapsed time meter or alternative device in accordance with the manufacturer's instructions.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-14-3: 240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP
 - i. Conditions 6 and 8 on the proposed permit assure compliance with this rule.

Section 5.7 outlines the Sulfur Oxides (SO_x) emission control requirements for complians with the requirements of this rule. The contents of this section dictate that on and after the compliance schedule specified in Section 7.5, operators of non-AO spark-ignited engines and non-AO compression-ignited engines shall comply with one of the following requirements:

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

- Use California Reformulated Diesel for compression-ignited engines; or
- Operate the engine on liquid fuel that contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.4.6; or
- Install and properly operate an emission control system that reduces SO₂ emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-8-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)
 - i. Condition 4, 5, 8 and 9 on the proposed permit assure compliance with this rule.
- b. S-3412-9-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)
 - i. Condition 4, 5, 8 and 9 on the proposed permit assure compliance with this rule.
- c. S-3412-10-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)
 - i. Condition 4, 5, 8 and 9 on the proposed permit assure compliance with this rule.
- d. S-3412-11-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)
 - i. Condition 4, 5, 8 and 9 on the proposed permit assure compliance with this rule.

Section 6.2.3 outlines the recordkeeping requirements of this rule, the requirements of this section dictate that an operator 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 provided to the APCO upon request. The records shall include, but are not limited to, the following:

- Total hours of operation,
- The type of fuel used,
- The purpose for operating the engine,
- For emergency standby engines, all hours of non-emergency and emergency operation shall be reported, and
- Other support documentation necessary to demonstrate claim to the exemption.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-8-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)
 - i. Condition 11 on the proposed permit assure compliance with this rule.
- b. S-3412-9-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)
 - i. Condition 11 on the proposed permit assure compliance with this rule.
- c. S-3412-10-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)
 - i. Condition 11 on the proposed permit assure compliance with this rule.
- d. S-3412-11-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)
 - i. Condition 11 on the proposed permit assure compliance with this rule.

e. S-3412-14-3: 240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

- i. Conditions 9 and 11 on the proposed permit assure compliance with this rule.

H. Rule 4703 Stationary Gas Turbines (Adopted August 18, 1994; Amended September 20, 2007)

This rule limits oxides of nitrogen (NOX) emissions from stationary gas turbine systems. The provisions of this rule apply to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour. This rule was amended September 20, 2007.

The requirements of sections 5.1 outlines the NOx emissions concentrations measured for compliance with rule. This section addresses the Tier 1, Tier 2, and Tier 3 NOx compliance limits for both gas fuel and liquid fuel.

The following permit requirements were added and/or revised to ensure compliance with this rule:

a. S-3412-1-17 ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

- i. Conditions 19, 44, and 45 on the proposed permit assure compliance with this rule.

b. S-3412-2-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

- i. Conditions 19, 44, and 45 on the proposed permit assure compliance with this rule.

- c. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 19, 44, and 45 on the proposed permit assure compliance with this rule.

- d. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 19, 44, and 45 on the proposed permit assure compliance with this rule.

Section 5.2 outlines the CO Emissions requirements for compliance with this rule. The owner or operator of any stationary gas turbine system shall not operate such unit under load conditions, except as allowed by the requirements for transitional operation periods, which results in the measured CO emissions concentration exceeding the compliance limits listed below:

Table 5-4 : CO Compliance Limits Stationary Gas Turbine	CO Compliance Limit, ppmv at 15% O ₂
Units not identified below	200
General Electric Frame 7	25
General Electric Frame 7 with Quiet Combustors	52
Less than 2.0 MW Solar Saturn gas turbine powering centrifugal compressor	250

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-1-17: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER

AUGMENTATION, SELECTIVE CATALYTIC REDUCTION,
STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW
NOMINAL RATING)

- i. Conditions 19 and 45 on the proposed permit assure compliance with this rule.
- b. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 19 and 45 on the proposed permit assure compliance with this rule.
- c. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 19 and 45 on the proposed permit assure compliance with this rule.

Section 6.2 outlines the monitoring and recordkeeping requirements for compliance with this Rule. This section dictates that the owner or operator of any stationary gas turbine system subject to the provisions of this rule shall either, install, operate, and maintain continuous emissions monitoring equipment for NO_x and oxygen, as identified in Rule 1080 (Stack Monitoring), or install and maintain APCO-approved alternate monitoring consisting of one or more of the following:

- Periodic NO_x emission concentrations,
- Turbine exhaust oxygen concentration,
- Air-to-fuel ratio,
- Flow rate of reducing agents added to turbine exhaust,
- Catalyst inlet and exhaust temperature,
- Catalyst inlet and exhaust oxygen concentration,
- Other operational characteristics.

Section 6.2.3 requires that the owner or operator shall monitor the exhaust gas NO_x emissions. The NO_x monitoring system shall meet EPA

requirements as specified in 40 CFR Part 60 App. B, Spec. 2, 40 CFR Part 60 App. F, and 40 CFR Part 60.7 (c), 60.7 (d), and 60.13, or other systems that are acceptable to the EPA. The owner or operator shall submit to the APCO information demonstrating that the emission monitoring system has data gathering and retrieval capability.

Section 6.2.4 dictates that the owner or operator shall maintain all records for a period of five years from the date of data entry and shall make such records available to the APCO upon request.

Section 6.2.6 requires that the owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up time and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used (liquid/gas).

Section 6.2.8 requires that the operator performing start-up or shutdown of a unit shall keep records of the duration of start-up or shutdown.

The requirements of 6.2.11 dictates that the operator of a unit shall keep records of the date, time and duration of each bypass transition period and each primary re-ignition period.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-1-17 ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 3, and 47 on the proposed permit assure compliance with this rule.

- b. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Condition 3 on the proposed permit assure compliance with this rule.

c. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

- i. Condition 3 on the proposed permit assure compliance with this rule.

Section 6.3 outlines the compliance testing requirements for compliance with this rule. The requirements of section 6.3.1 dictates that the owner or operator shall provide source test information annually regarding the exhaust gas NOx and CO concentrations.

The following permit requirements were added and/or revised to ensure compliance with this rule

a. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

- i. Condition 47 on the proposed permit assure compliance with this rule.

Section 6.4 outlines the acceptable test methods for use in determining compliance with the requirements of this rule. As dictated by this section the following test measures shall be used unless otherwise approved by the APCO and EPA.:

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.
- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.
- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.
- HHV and LHV of distillate fuels shall be determined by using:

- i. ASTM D240-87, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, or
 - ii. ASTM D2382-88, Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-precision Method).
- HHV and LHV of gaseous fuels shall be determined by using:
 - i. ASTM D3588-91, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density (Specific Gravity) of Gaseous Fuels, or
 - ii. ASTM 1826-88, Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, or
 - iii. ASTM 1945-81, Standard Method for Analysis of Natural Gas by Gas Chromatography.
 - Demonstrated percent efficiency of the stationary gas turbine shall be determined using the facility instrumentation for gas turbine fuel consumption and power output. Power output values used to determine gas turbine efficiency shall be either:
 - i. The electrical power output of the gas turbine, provided the gas turbine generates electricity; or
 - ii. The mechanical power output of the gas turbine, provided the gas turbine does not generate electricity.

The following permit requirements were added and/or revised to ensure compliance with this rule:

- a. S-3412-1-17 ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
- i. Conditions 31, 44, and 46 on the proposed permit assure compliance with this rule.
- b. S-3412-2-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION,

STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW
NOMINAL RATING)

- i. Conditions 31, 44, 47, and 46 on the proposed permit assure compliance with this rule.

- c. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 31, 44, 47, and 46 on the proposed permit assure compliance with this rule.

- d. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 31, 44, and 46 on the proposed permit assure compliance with this rule.

I. 40 PART 60 Subpart A, Monitoring Requirements

Section 60.13 outlines the criteria for monitoring conditions in regards to , the standard performance requirements of this section were updated 9/13/10. The requirements of these subparts apply to the following:

- The owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

- In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

Section 60.13 outlines the monitoring requirements for compliance with the performance standards for new stationary sources. The requirements of this rule were amended June 13, 2007. The amendments to this rule do not affect the overall applicability or requirements as they are applied to sources at this facility. Since the changes included in the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

The following permit requirement will remain on the Title V permit to ensure compliance with this rule:

- a. S-3412-1-17 ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 43 and 44 on the proposed permit assure compliance with this rule.
- b. S-3412-2-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Conditions 43 and 44 on the proposed permit assure compliance with this rule.
- c. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION,

STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW
NOMINAL RATING)

- i. Conditions 43 and 44 on the proposed permit assure compliance with this rule.

- d. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

- i. Conditions 43 and 44 on the proposed permit assure compliance with this rule.

J. 40 PART 60 Subpart GG—Standards of Performance for Stationary Gas Turbines

This part outlines the acceptable Test methods and procedures for compliance with 40 CFR Part 60 subpart A Performance tests, the requirements of this section were updated Feb. 24, 2006. This section dictates that the require testing for 40 CFR Part 60 subpart A may the satisfied using the following tests:

- EPA Method 20,
- ASTM D6522–00 (incorporated by reference, see §60.17), or
- EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_x and diluent concentration.
- Sampling traverse points are to be selected following Method 20 or Method 1
- Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20

The requirements of this part dictate that an owner may determine compliance with the applicable nitrogen oxides emission limitation in §60.332 and shall meet the performance test requirements of §60.8 as follows:

- For each run of the performance test, the mean nitrogen oxides emission concentration (NO_{xo}) corrected to 15 percent O₂ shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam

generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

$$\text{NO}_x = (\text{NO}_{x_0})(P_r/P_o)^{0.5} e^{19 (H_o - 0.00633)(288^\circ\text{K}/T_a)^{1.53}}$$

Where:

NO_x = Emission concentration of NO_x at 15 percent O_2 and ISO standard ambient conditions, ppm by volume, dry basis,

NO_{x_0} = Mean observed NO_x concentration, ppm by volume, dry basis, at 15 percent O_2 ,

P_r = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,

P_o = observed combustor inlet absolute pressure at test, mm Hg,

H_o = observed humidity of ambient air, g $\text{H}_2\text{O}/\text{g}$ air,

e = transcendental constant, 2.718, and

T_a = ambient temperature, $^\circ\text{K}$.

- The 3-run performance test required by §60.8 must be performed within ± 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in §60.331).
- For a combined cycle turbine system with supplemental heat (duct burner), the owner or operator may elect to measure the turbine NO_x emissions after the duct burner rather than directly after the turbine. If the owner or operator elects to use this alternative sampling location, the applicable NO_x emission limit in §60.332 for the combustion turbine must still be met.
- If water or steam injection is used to control NO_x with no additional post-combustion NO_x control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with §60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20,
- If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in §60.332, then concurrently with

each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in §60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.

- If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.
- If the owner or operator elects to install and certify a NO_x CEMS under §60.334(e), then the initial performance test required under §60.8 may be done in the following alternative manner:
 - i. Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.
 - ii. Use the test data both to demonstrate compliance with the applicable NO_x emission limit under §60.332 and to provide the required reference method data for the RATA of the CEMS described under §60.334(b).
 - iii. The requirement to test at three additional load levels is waived.
- If the owner or operator elects under §60.334(f) to monitor combustion parameters or parameters indicative of proper operation of NO_x emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in §60.334(g).
- To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of:
 - i. For liquid fuels, ASTM D2597–94 (Reapproved 1999), D6366–99, D4629–02, D5762–02 (all of which are incorporated by reference, see §60.17); or
 - ii. For gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Administrator.

- If the owner or operator is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:
 - i. For liquid fuels, ASTM D129–00, D2622–98, D4294–02, D1266–98, D5453–00 or D1552–01 (all of which are incorporated by reference, see §60.17); or
 - ii. For gaseous fuels, ASTM D1072–80, 90 (Reapproved 1994); D3246–81, 92, 96; D4468–85 (Reapproved 2000); or D6667–01 (all of which are incorporated by reference, see §60.17).

- The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

The following permit requirements will remain on the permit to ensure compliance with this rule:

- a. S-3412-1-17 ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Condition 31 on the proposed permit assure compliance with this rule.

- b. S-3412-2-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
 - i. Condition 28 and 31 on the proposed permit assure compliance with this rule.

- c. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION,

STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW
NOMINAL RATING)

- i. Condition 28 and 31 on the proposed permit assure compliance with this rule.

- d. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
- i. Condition 28 and 31 on the proposed permit assure compliance with this rule.

K. 40 CFR Part 72, Subpart A, Acid Rain Program General Provisions

The purpose of this part is to establish certain general provisions and the operating permit program requirements for affected sources and affected units under the Acid Rain Program the requirements of this subpart were amended May 12, 2005. As stated in section 72.6 the following units shall be an affected unit, and any source that includes such a unit shall be an affected source, subject to the requirements of the Acid Rain Program:

- A unit listed in table 1 of §73.10(a) of this chapter.
- A unit that is listed in table 2 or 3 of §73.10 of this chapter and any other existing utility unit, except a unit under paragraph (b) of this section.
- A utility unit, except a unit under paragraph (b) of this section, that:
 - (i) Is a new unit; or
 - (ii) Did not serve a generator with a nameplate capacity greater than 25 MWe on November 15, 1990 but serves such a generator after November 15, 1990.

Section 72.9(a) outlines the general Permit Requirements as the following:

- The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under this part in accordance with the deadlines specified in §72.30;
 - (ii) Submit in a timely manner a complete reduced utilization plan if required under §72.43; and

(iii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit.

- The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Section 72.9 (b) outlines the Monitoring Requirements dictated by this section relevant to this facility. Including the following:

- 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 part 75 of this chapter.
- The emissions measurements recorded and reported in accordance with part 75 of this chapter shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- The requirements of part 75 of this chapter shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Section 79.2(c) outlines the Sulfur Dioxide Requirements dictated by this section relevant to this facility as the following:

- 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 source's compliance account (after deductions under §73.34(c) of this chapter) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitation for sulfur dioxide.

- 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
- An affected unit shall be subject to the requirements as follows:
 - (i) Starting January 1, 1995, an affected unit under §72.6(a)(1);
 - (ii) Starting on or after January 1, 1995 in accordance with §§72.41 and 72.43, an affected unit under §72.6(a) (2) or (3) that is a substitution or compensating unit;
 - (iii) Starting January 1, 2000, an affected unit under §72.6(a)(2) that is not a substitution or compensating unit; or
 - (iv) Starting on the later of January 1, 2000 or the deadline for monitor certification under part 75 of this chapter, an affected unit under §72.6(a)(3) that is not a substitution or compensating unit.
- Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under §§72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Section 72.9(d) outlines the Nitrogen Oxides Requirements for compliance with section. This section dictates that. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Section 72.9(e) outlines the Excess Emissions Requirements for compliance with this section as follows:

- The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under part 77 of this chapter.
- The owners and operators of an affected source that has excess emissions in any calendar year shall:

- (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by part 77 of this chapter; and
- (ii) Comply with the terms of an approved offset plan, as required by part 77 of this chapter.

Section 72.9(f) outlines the Recordkeeping and Reporting Requirements for compliance with this section as the following:

- Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority.
 - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with §72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.
 - (ii) All emissions monitoring information, in accordance with part 75 of this chapter; provided that to the extent that part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (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 under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- 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 subpart I of this part and part 75 of this chapter.

The following permit requirement will remain on the title V permit to ensure compliance with this rule:

a. S-3412-0-1: FACILITY-WIDE REQUIREMENTS

- i. Conditions 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53 and 54 on the proposed permit assure compliance with this rule.

L. 40 CFR Part 73, Subpart C, Recordation In Accounts.

This subsection outlines the requirements for the sulfur dioxide allowance tracking system. The purpose of this part is to establish the requirements and procedures for the following:

- The allocation of sulfur dioxide emissions allowances;
- The tracking, holding, and transfer of allowances;
- The deduction of allowances for purposes of compliance and for purposes of offsetting excess emissions pursuant to parts 72 and 77 of this chapter;
- The sale of allowances through EPA-sponsored auctions and a direct sale, including the independent power producers written guarantee program; and
- The application for, and distribution of, allowances from the Conservation and Renewable Energy Reserve.
- The application for, and distribution of, allowances for desulfurization of fuel by small diesel .

As dictated by this subpart the requirements of this part may be applicable to the following parties:

- Owners, operators, and designated representatives of affected sources and affected units pursuant to §72.6 of this chapter;
- Any new independent power producer as defined in section 416 of the Act and §72.2 of this chapter, except as provided in section 405(g)(6) of the Act;
- Any owner of an affected unit who may apply to receive allowances under the Energy Conservation and Renewable Energy Reserve Program established in accordance with section 404(f) of the Act;
- Any small diesel refinery as defined in §72.2 of this chapter, and
- Any other person, as defined in §72.2 of this chapter, who chooses to purchase, hold, or transfer allowances as provided in section 403(b) of the Act.

Since the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

The following permit requirements will remain on the permit to ensure compliance with this rule:

a. S-3412-0-1: FACILITY-WIDE REQUIREMENTS

- i. Condition 44 on the proposed permit assure compliance with this rule.

M. 40 CFR Part 75, Subpart C, Continuous Emission Monitoring

The purpose of this part is to establish requirements for the monitoring, recordkeeping, and reporting of sulfur dioxide (SO₂), nitrogen oxides (NO_x), and carbon dioxide (CO₂) emissions, volumetric flow, and opacity data from affected units under the Acid Rain Program and set forth provisions for the monitoring, recordkeeping, and reporting of NO_x mass emissions in order to demonstrate compliance with a NO_x mass emission reduction program. The requirements of this subsection were amended Updated Mar. 28, 2011. As dictated by this subpart the requirements of this part may be applicable to the following parties:

- The provisions of this part apply to each affected unit subject to Acid Rain emission limitations or reduction requirements for SO₂ or NO_x.
- The provisions of this part apply to sources subject to a State or federal NO_x mass emission reduction program, to the extent these provisions are adopted as requirements under such a program.

Since the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

The following permit requirements will remain on the permit to ensure compliance with this rule:

a. S-3412-0-1: FACILITY-WIDE REQUIREMENTS

- i. Condition 42, 43, 52 and 53 on the proposed permit assure compliance with this rule.

N. 40 CFR Part 77 Subchapter C, Offset plans for excess emissions of sulfur dioxide.

The requirements of this section outline the excess emissions offset planning and offset penalty requirements under section 411 of the Clean Air Act, 42

As dictated by this part the requirements of this part are applicable to the owners and operators of any affected source that has excess emissions of sulfur dioxide in any calendar year shall be liable to offset the amount of such excess emissions by an equal amount of allowances from the source's compliance account.

Since the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

The following permit requirements will remain on the permit to ensure compliance with this rule:

a. S-3412-0-1: FACILITY-WIDE REQUIREMENTS

- i. Condition 50 and 51 on the proposed permit assure compliance with this rule.

O. 40 CFR Part 82, Subparts B and F, Stratospheric Ozone

These regulations apply to the servicing of motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC). Sections of this regulation were amended in 2004 and 2008. Since the latest rule amendment did not result in adding new requirements and/or revising current requirements in the facility-wide permit, no further evaluation is needed.

The following permit requirements will remain on the permit to ensure compliance with this rule:

a. S-892-0-3 FACILITY-WIDE REQUIREMENTS

- i. Condition 29 and 30 on the proposed permit assure compliance with this rule.

P. Federal Compliance Assurance Monitoring (CAM) Applicability

Title 40, Part 64 of the Code of Federal Regulations specifies regulations for the Federal CAM rule.

Section 64.2 states that a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit is subject to the Compliance Assurance Monitoring (CAM) rule if the unit satisfies all of the following criteria:

- The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this Regulation;
- The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

The applicability of Cam to each permit unit is addressed below:

- a. S-3412-1-17 ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

Permit to Operate S-3412-1 authorizes the operation of a natural gas fired combined cycle gas turbine engine/electrical generator #1 with dry low nox combustors, steam power augmentation, selective catalytic reduction, steam turbine, and electrical generator. The selective catalytic reduction unit meets the definition of a control device as defined in 40 CFR Part 64. The permit unit has a potential to emit greater than the threshold limit of 100 ton CO, 10 ton of VOC, and NOX emissions per year should the control device fail. However there is no add-on emissions control device for VOC so CAM is not trigger for VOC. There is an emissions control unit for NOX, and CO therefore, the CAM/MACT requirements apply to this emission unit. However, Permit to Operate S-3412-1 contains conditions for parameter monitoring and recordkeeping that appear to satisfy the CAM/MACT requirements.

The following permit requirements will remain on the permit to ensure compliance with this rule:

- i. Conditions 5, 14, 18, 26, 34, 36, 38, 47,50, 51, and 67, on the proposed permit assure compliance with this rule

- b. S-3412-2-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

Permit to Operate S-3412-2 authorizes the operation of a natural gas fired combined cycle gas turbine engine/electrical generator #1 with dry low nox combustors, steam power augmentation, selective catalytic reduction, steam turbine, and electrical generator. The selective catalytic reduction unit meets the definition of a control device as defined in 40 CFR Part 64. The permit unit has a potential to emit greater than the threshold limit of 100 ton CO, 10 ton of VOC, and NOX emissions per year should the control device fail. However there is no add-on emissions control device for CO or VOC so CAM is not trigger for CO or VOC. There is a emissions control unit for NOX therefore, the CAM/MACT requirements apply to this emission unit. However, Permit to Operate S-3412-2 contains conditions for parameter monitoring and recordkeeping that appear to satisfy the CAM/MACT requirements.

The following permit requirements will remain on the permit to ensure compliance with this rule:

- i. Conditions 5, 14, 18, 26, 34, 36, 38, 47, 50, 51, and 67, on the proposed permit assure compliance with this rule

- c. S-3412-3-18: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

Permit to Operate S-3412-3 authorizes the operation of a natural gas fired combined cycle gas turbine engine/electrical generator #1 with dry low nox combustors, steam power augmentation, selective catalytic reduction, steam turbine, and electrical generator. The selective catalytic reduction unit meets the definition of a control device as defined in 40 CFR Part 64. The permit unit has a potential to emit greater than the threshold limit of 100 ton CO, 10 ton of VOC, and NOX emissions per year should the control device fail. However there is no add-on emissions control device for CO or VOC so CAM is not trigger for VOC or CO. There is an

emissions control unit for NOX, therefore, the CAM/MACT requirements apply to this emission unit. However, Permit to Operate S-3412-3 contains conditions for parameter monitoring and recordkeeping that appear to satisfy the CAM/MACT requirements.

The following permit requirements will remain on the permit to ensure compliance with this rule:

- i. Conditions 5, 14, 18, 26, 34, 36, 38, 47, 50, 51, and 67, on the proposed permit assure compliance with this rule

d. S-3412-4-13: ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

Permit to Operate S-3412-4 authorizes the operation of a natural gas fired combined cycle gas turbine engine/electrical generator #1 with dry low nox combustors, steam power augmentation, selective catalytic reduction, steam turbine, and electrical generator. The selective catalytic reduction unit meets the definition of a control device as defined in 40 CFR Part 64. The permit unit has a potential to emit greater than the threshold limit of 100 ton CO, 10 ton of VOC, and NOX emissions per year should the control device fail. However there is no add-on emissions control device for VOC so CAM is not trigger for VOC. There is a emissions control unit for NOX, and CO therefore, the CAM/MACT requirements apply to this emission unit. However, Permit to Operate S-3412-4 contains conditions for parameter monitoring and recordkeeping that appear to satisfy the CAM/MACT requirements.

The following permit requirements will remain on the permit to ensure compliance with this rule:

- i. Conditions 5, 14, 18, 26, 34, 36, 38, 47, 50, 51, and 67, on the proposed permit assure compliance with this rule

e. S-3412-5-4: COOLING TOWER #1 WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a

source to be classified as a major source. Therefore CAM is not triggered for this unit

f. S-3412-6-4: COOLING TOWER #2 WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

g. S-3412-8-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

h. S-3412-9-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

i. S-3412-10-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

j. S-3412-11-3: 587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

k. S-3412-13-2: 6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

l. S-3412-14-3: 240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

This unit does not have a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Therefore CAM is not triggered for this unit

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.

The applicant has requested a permit shield for all applicable federally enforceable requirements and non-federally enforceable requirements, as well as requirements listed in the permit application but not included in the Title V permit because they do not apply to this facility.

A. Requirements Addressed by Model General Permit Templates

The applicant does not propose to use any model general permit templates.

B. Requirements not Addressed by Model General Permit Templates

The applicant does not propose to use any model general permit templates.

Attachment A

DRAFT RENEWED TITLE V OPERATING PERMIT

San Joaquin Valley Air Pollution Control District

FACILITY: S-3412-0-2

EXPIRATION DATE: 01/31/2010

FACILITY-WIDE REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The owner or operator shall not release or discharge into the atmosphere from any single source operation, dust, fumes, or total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions, as determined by the test methods in Section 4.0 of District Rule 4201 (amended December 17, 1992). [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. {2285} 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
4. {2286} 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
5. {2287} 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
6. {2288} 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
7. 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;] Federally Enforceable Through Title V Permit
8. {2290} 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
9. {2291} 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

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: LA PALOMA GENERATING CO LLC
Location: 1760 W SKYLINE ROAD, MCKITTRICK, CA 93251
S-3412-0-2: Oct 26 2011 5:22PM -- JONESW

10. {2292} 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
11. {2293} 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
12. {2294} 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
13. {2295} 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
14. 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 and PSD permit (SJ 98-01), VII] Federally Enforceable Through Title V Permit
15. {2297} 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
16. {2298} 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
17. {2299} 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
18. {2300} 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
19. {2301} 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
20. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative 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 and PSD permit (SJ 98-01), V] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative 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 and PSD permit. (SJ 98-01), V] Federally Enforceable Through Title V Permit

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22. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3 and PSD permit (SJ 98-01), V] Federally Enforceable Through Title V Permit
23. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative 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 and PSD permit (SJ 98-01), V] Federally Enforceable Through Title V Permit
24. {2306} 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
25. {2307} 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
26. {2308} 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
27. {2309} 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
28. {2310} 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
29. {2311} 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
30. {2312} 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
31. {2313} 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
32. {2314} 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
33. {2315} 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
34. {2316} 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

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35. {2317} 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
36. {2318} 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
37. {2319} 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
38. {2320} 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
39. {2321} 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
40. {2322} 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
41. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. The Title V permit shall serve as the facility's Acid Rain permit. [40 CFR 72.9] Federally Enforceable Through Title V Permit
42. 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 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
43. 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. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
44. 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 72.9 & 40 CFR 73] Federally Enforceable Through Title V Permit
45. 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 72.9] Federally Enforceable Through Title V Permit
46. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72.9] Federally Enforceable Through Title V Permit
47. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 72.9(c)(1)(i), prior to the calendar year for which the allowance was allocated. [40 CFR 72.9] Federally Enforceable Through Title V Permit

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48. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72.9] Federally Enforceable Through Title V Permit
49. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72.9] 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. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 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 77. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 40 CFR 77] Federally Enforceable Through Title V Permit
52. The owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR part 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative; (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 under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
53. 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 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
54. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR 72.9] Federally Enforceable Through Title V Permit
55. FACILITY OPERATION: All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD permit (SJ 98-01), III] Federally Enforceable Through Title V Permit
56. MALFUNCTION: A. Reporting: The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in the PSD permit for units S-3412-1, S-3412-2, S-3412-3, S-3412-4, or S-3412-13. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include all information required by Section IV.A of the PSD permit. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in Section IV.B of the PSD permit. [PSD permit (SJ 98-01), IV.A] Federally Enforceable Through Title V Permit

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57. **MALFUNCTION: B. Treatment of Emissions:** 1. Definition of malfunction: A malfunction means a sudden and reasonably unforeseeable breakdown of equipment or of a process beyond the control of the source requiring immediate corrective action to restore normal operation. 2. Emissions in excess of the limits in the PSD permit conditions for permit units S-3412-1, S-3412-2, S-3412-3, S-3412-4, or S-3412-13 shall constitute a violation and may be the subject of enforcement proceedings. 3. Affirmative defense: In the context of an enforcement proceeding, excess emissions shall not be subject to penalty if the permittee demonstrates compliance with all of the requirements of Section IV.B.3 of the PSD permit. 4. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits. 5. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD permit (SJ 98-01), IV.B] Federally Enforceable Through Title V Permit
58. **TRANSFER OF OWNERSHIP:** In the event of any changes in control or ownership of the facilities to be constructed, the PSD permit shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of the PSD permit and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD permit (SJ 98-01), VI] Federally Enforceable Through Title V Permit
59. **OTHER APPLICABLE REGULATIONS:** The owner and operator of the facility shall construct and operate the stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD permit (SJ 98-01), VIII] Federally Enforceable Through Title V Permit
60. **Agency Notification:** All correspondence as required by the PSD permit shall be forwarded to EPA at the following address: Director, Air Division (Attn: Air-1), U. S. Environmental Protection Agency, Region 9, 75 Hawthorne Street San Francisco, CA 94105. [PSD permit (SJ 98-01), X.J] Federally Enforceable Through Title V Permit
61. {2323} 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
62. {2324} 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
63. On January 31, 2005, 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

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-1-17

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rule 2201 and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District Rule 2201, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO:2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District Rule 2201; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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. [District Rule 2201] Federally Enforceable Through Title V Permit
36. {2249} CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. {2250} The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080; 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. {2253} Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. {2271} The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NO_x emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NO_x concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NO_x (as NO₂): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O₂, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O₂, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O₂, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NO_x daily limits may be exceeded during recommissioning periods: NO_x (as NO₂): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO₂: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NOx per hr; 4,790.0 lbs-NOx per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NOx per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NOx and CO emitted; c. Total emissions of NOx and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NOx and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NOx shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NOx shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G.] Federally Enforceable Through Title V Permit

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64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-2-18

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

EXPIRATION DATE: 01/31/2010

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PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rule 2201 and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District Rule 2201, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C:1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO: 2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District Rule 2201; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

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

34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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. [District Rule 2201] Federally Enforceable Through Title V Permit
36. {2249} CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. {2250} The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. {2253} Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. {2271} The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NOx emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NOx concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O2, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NOx daily limits may be exceeded during recommissioning periods: NOx (as NO2): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO2: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NO_x per hr; 4,790.0 lbs-NO_x per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NO_x per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NO_x and CO emitted; c. Total emissions of NO_x and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NO_x and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NO_x and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NO_x and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NO_x shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NO_x shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G.] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-3-18

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rule 2201 and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District Rule 2201, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO: 2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District Rule 2201; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = $((a-(bcx/1,000,000)) \times 1,000,000 / b) \times d$, 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 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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. [District Rule 2201] Federally Enforceable Through Title V Permit
36. {2249} CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. {2250} The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. {2253} Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40.CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. {2271} The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NOx emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NOx concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O2, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NOx daily limits may be exceeded during recommissioning periods: NOx (as NO2): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO2: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NOx per hr; 4,790.0 lbs-NOx per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NOx per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NOx and CO emitted; c. Total emissions of NOx and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NOx and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NOx shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NOx shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G.] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-4-13

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rule 2201 and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District Rule 2201, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO:2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District Rule 2201; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District Rule 2201] Federally Enforceable Through Title V Permit
35. 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. [District Rule 2201] Federally Enforceable Through Title V Permit
36. {2249} CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. {2250} The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. {2253} Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. {2271} The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NOx emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NOx concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O2, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NOx daily limits may be exceeded during recommissioning periods: NOx (as NO2): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO2: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NO_x per hr; 4,790.0 lbs-NO_x per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NO_x per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NO_x and CO emitted; c. Total emissions of NO_x and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NO_x and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NO_x and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NO_x and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NO_x shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NO_x shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G.] Federally Enforceable Through Title V Permit

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64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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-3412-5-4

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

COOLING TOWER #1 WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

EXPIRATION DATE: 01/31/2010

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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 0.0006%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. PM10 emission rate shall not exceed 11.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Daily PM10 emissions shall be calculated as follows: $PM10 \text{ lb/day} = \text{cooling water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * 0.5$. [District Rule 2201] Federally Enforceable Through Title V Permit
5. PM10 emissions shall be determined by quarterly cooling water sample analysis. If any quarterly testing results indicate noncompliance, weekly testing shall be conducted until eight (8) consecutive weeks of testing have demonstrated compliance, at which time quarterly sampling may resume. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain records of cooling water sample analysis. All records shall be maintained for at least 5 years and shall be made available to the District upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4202 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-6-4

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

COOLING TOWER #2 WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR

EXPIRATION DATE: 01/31/2010

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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 0.0006%. [District Rule 2201] Federally Enforceable Through Title V Permit
3. PM10 emission rate shall not exceed 11.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Daily PM10 emissions shall be calculated as follows: $PM10 \text{ lb/day} = \text{cooling water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * 0.5$. [District Rule 2201] Federally Enforceable Through Title V Permit
5. PM10 emissions shall be determined by quarterly cooling water sample analysis. If any quarterly testing results indicate noncompliance, weekly testing shall be conducted until eight (8) consecutive weeks of testing have demonstrated compliance, at which time quarterly sampling may resume. [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain records of cooling water sample analysis. All records shall be maintained for at least 5 years and shall be made available to the District upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4202 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-8-3

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)

PERMIT UNIT REQUIREMENTS

1. {2413} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-9-3

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)

EXPIRATION DATE: 01/31/2010

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PERMIT UNIT REQUIREMENTS

1. {2413} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

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10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-10-3

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)

PERMIT UNIT REQUIREMENTS

1. {2413} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-11-3

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)

PERMIT UNIT REQUIREMENTS

1. {2413} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR.93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-13-2

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

EXPIRATION DATE: 01/31/2010

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PERMIT UNIT REQUIREMENTS

1. {450} Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Emission rates shall not exceed any of the following: PM₁₀: 0.007 lb/MMBTU; NO_x (as NO₂): 12 ppmv @ 3% O₂; VOC - 30 ppmv @ 3% O₂; or CO: 50 ppmv @ 3% O₂. [District Rule 2201 and District Rules 4301, 5.2; 4305, 5.1; and 4306, 5.1] Federally Enforceable Through Title V Permit
3. Boiler natural gas consumption shall not exceed 148.8 MMBtu/day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Permittee shall maintain daily records of boiler natural gas consumption (MMBtu/day). [District Rule 2201 and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Boiler shall be fired exclusively on pipeline quality 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 Rule 2201; District Rule 4301, 5.2.1; District Rule 4801; Kern County Rule 407; and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit
7. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

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

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8. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized. Sample collection shall be by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4305 (amended August 21, 2003). [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rule 2201 and District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
15. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
16. CO emissions for source test purposes shall be determined using EPA Method 10 or EPA Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
17. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit
19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
20. If the unit is fired on natural gas certified by the supplier to have a sulfur content of 0.75 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

21. If the unit is not fired on natural gas certified by the supplier to have a sulfur content 0.75 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the unit shall be determined using ASTM method D 3246 or double GC for H₂S and mercaptans. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
22. If the unit is not fired on natural gas certified by the supplier to have a sulfur content 0.75 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit
24. {2804} Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit
26. Emission Limits: Emissions from the boiler servicing the wastewater treatment system shall not exceed the following limits: a) NO_x (as NO₂): 0.103 lb/hr; b) CO: 0.261 lb/hr; c) SO₂: 0.012 lb/hr. [PSD permit (SJ 98-01), X.E.5] Federally Enforceable Through Title V Permit
27. Performance Tests: Compliance with the NO_x and CO emission limits in Conditions of the PSD permit for the boiler servicing the wastewater treatment system shall be demonstrated within 90 days of initial startup and subsequently not less than once every 12 months, except as provided below. [PSD permit (SJ 98-01), X.G.5] Federally Enforceable Through Title V Permit
28. Performance Tests: Source testing to demonstrate compliance with the NO_x and CO emission limits in Conditions of the PSD permit for the boiler servicing the wastewater treatment system shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. If the Permittee fails any compliance demonstration for the NO_x and CO emission limits in Conditions of this permit when testing not less than every 36 months, then compliance with these limits shall be demonstrated not less than once every 12 months. [PSD permit (SJ 98-01), X.G.6] Federally Enforceable Through Title V Permit
29. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rules 4201 (as amended 12/17/92), 4301 (as amended 12/17/92), and 4305 (as amended 8/21/03). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 1081 (as amended 12/16/93). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-14-3

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE
POWERING A FIREWATER PUMP

PERMIT UNIT REQUIREMENTS

1. {2413} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The exhaust stack shall not be fitted with a rain cap or similar device which would impede vertical exhaust flow. [District Rule 4102]
4. NOx emissions shall not exceed 4.2 g/bhp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The PM10 emissions rate shall not exceed 0.14 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 4.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for maintenance, testing, and 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. [District Rule 4702, 4.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, 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. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the diesel fire pump engine for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the weekly operating hours and the 12 month rolling operating hours of the diesel fire pump. [PSD permit (SJ 98-01), X.H.2] 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-3412-0-1

EXPIRATION DATE: 01/31/2010

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 not release or discharge into the atmosphere from any single source operation, dust, fumes, or total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions, as determined by the test methods in Section 4.0 of District Rule 4201 (amended December 17, 1992). [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. 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
4. 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
5. 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
6. 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
7. 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
8. 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
9. 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
10. 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: LA PALOMA GENERATING CO LLC
Location: 1760 W SKYLINE ROAD, MCKITTRICK, CA 93251
S-3412-0-1: Oct 27 2011 9:31AM - JONESW

11. 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
12. 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
13. 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
14. 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 and PSD permit (SJ 98-01), VII] Federally Enforceable Through Title V Permit
15. 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
16. 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
17. 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
18. 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
19. 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
20. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative 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 and PSD permit (SJ 98-01), V] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative 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 and PSD permit. (SJ 98-01), V] Federally Enforceable Through Title V Permit
22. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3 and PSD permit (SJ 98-01), V] Federally Enforceable Through Title V Permit

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

23. Upon presentation of appropriate credentials, a permittee shall allow the EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the District, and/or their authorized representative 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 and PSD permit (SJ 98-01), V] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. 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
27. 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
28. 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
29. 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
30. 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
31. 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
32. 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
33. 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
34. 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
35. 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

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

36. 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
37. 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
38. 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
39. 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
40. 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
41. The owners and operators of each affected source and each affected unit at the source shall: (i) Operate the unit in compliance with a complete Acid Rain permit application or a superceding Acid Rain permit issued by the permitting authority; and (ii) Have an Acid Rain permit. The Title V permit shall serve as the facility's Acid Rain permit. [40 CFR 72.9] Federally Enforceable Through Title V Permit
42. 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 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
43. 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. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
44. 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 72.9 & 40 CFR 73] Federally Enforceable Through Title V Permit
45. 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 72.9] Federally Enforceable Through Title V Permit
46. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program. [40 CFR 72.9] Federally Enforceable Through Title V Permit
47. An allowance shall not be deducted in order to comply with the requirements under 40 CFR part 72.9(c)(1)(i), prior to the calendar year for which the allowance was allocated. [40 CFR 72.9] Federally Enforceable Through Title V Permit
48. An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization. [40 CFR 72.9] 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.

49. An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right. [40 CFR 72.9] 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. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 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 77. For the purposes of this condition, the term "excess emissions" is defined in 40 CFR 72.2. [40 CFR 72.9 & 40 CFR 77] Federally Enforceable Through Title V Permit
52. The owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority: (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR part 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative; (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 under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program. [40 CFR 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
53. 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 72.9 & 40 CFR 75] Federally Enforceable Through Title V Permit
54. Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source. [40 CFR 72.9] Federally Enforceable Through Title V Permit
55. FACILITY OPERATION: All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of the permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD permit (SJ 98-01), III] Federally Enforceable Through Title V Permit
56. MALFUNCTION: A. Reporting: The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in the PSD permit for units S-3412-1, S-3412-2, S-3412-3, S-3412-4, or S-3412-13. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include all information required by Section IV.A of the PSD permit. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in Section IV.B of the PSD permit. [PSD permit (SJ 98-01), IV.A] 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.

57. **MALFUNCTION: B. Treatment of Emissions:** 1. Definition of malfunction: A malfunction means a sudden and reasonably unforeseeable breakdown of equipment or of a process beyond the control of the source requiring immediate corrective action to restore normal operation. 2. Emissions in excess of the limits in the PSD permit conditions for permit units S-3412-1, S-3412-2, S-3412-3, S-3412-4, or S-3412-13 shall constitute a violation and may be the subject of enforcement proceedings. 3. Affirmative defense: In the context of an enforcement proceeding, excess emissions shall not be subject to penalty if the permittee demonstrates compliance with all of the requirements of Section IV.B.3 of the PSD permit. 4. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits. 5. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD permit (SJ 98-01), IV.B] Federally Enforceable Through Title V Permit
58. **TRANSFER OF OWNERSHIP:** In the event of any changes in control or ownership of the facilities to be constructed, the PSD permit shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of the PSD permit and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD permit (SJ 98-01), VI] Federally Enforceable Through Title V Permit
59. **OTHER APPLICABLE REGULATIONS:** The owner and operator of the facility shall construct and operate the stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD permit (SJ 98-01), VIII] Federally Enforceable Through Title V Permit
60. **Agency Notification:** All correspondence as required by the PSD permit shall be forwarded to EPA at the following address: Director, Air Division (Attn: Air-1), U. S. Environmental Protection Agency, Region 9, 75 Hawthorne Street San Francisco, CA 94105. [PSD permit (SJ 98-01), X.J] Federally Enforceable Through Title V Permit
61. 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
62. 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
63. On January 31, 2005, 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

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-1-13

EXPIRATION DATE: 01/31/2010

SECTION: NE27 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District NSR Rule and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit
6. 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
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District NSR Rule, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO: 2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District NSR Rule; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, 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 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D.3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District NSR Rule] Federally Enforceable Through Title V Permit
35. 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. [District NSR Rule] Federally Enforceable Through Title V Permit
36. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NOx emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NOx concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O2, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NOx daily limits may be exceeded during recommissioning periods: NOx (as NO2): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO2: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit.
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NOx per hr; 4,790.0 lbs-NOx per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NOx per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NOx and CO emitted; c. Total emissions of NOx and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NOx and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NOx shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NOx shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G.] Federally Enforceable Through Title V Permit

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64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-2-14

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NOx, CO and O2 downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District NSR Rule and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NOx and CO emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit
6. 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
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District NSR Rule, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO:2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District NSR Rule; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$, 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 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District NSR Rule] Federally Enforceable Through Title V Permit
35. 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. [District NSR Rule] Federally Enforceable Through Title V Permit
36. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NOx emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NOx concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O2, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O2, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NOx daily limits may be exceeded during recommissioning periods: NOx (as NO2): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO2: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NOx per hr; 4,790.0 lbs-NOx per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NOx per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NOx and CO emitted; c. Total emissions of NOx and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NOx and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NOx shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NOx shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G.] 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.

64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-3-17

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District NSR Rule and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit
6. 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
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District NSR Rule, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO: 2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District NSR Rule; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM-method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District NSR Rule] Federally Enforceable Through Title V Permit
35. 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. [District NSR Rule] Federally Enforceable Through Title V Permit
36. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NO_x emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NO_x concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NO_x (as NO₂): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O₂, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O₂, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O₂, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NO_x daily limits may be exceeded during recommissioning periods: NO_x (as NO₂): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO₂: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NOx per hr; 4,790.0 lbs-NOx per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NOx per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NOx and CO emitted; c. Total emissions of NOx and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NOx and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NOx and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NOx shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NOx shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-4-9

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)

PERMIT UNIT REQUIREMENTS

1. Gas turbine engine and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exceed 5% opacity, except for three minutes in any hour. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The gas turbine engine shall be equipped with continuously recording fuel gas flowmeter. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Gas turbine engine exhaust shall be equipped with a continuously recording emissions monitor for NO_x, CO and O₂ downstream of the SCR catalyst dedicated to this unit. This continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District NSR Rule and District Rule 4703, 6.2] Federally Enforceable Through Title V Permit
4. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO_x and CO emission limits. [District NSR Rule] Federally Enforceable Through Title V Permit
6. 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
7. Except during startup ignition, gas turbine engine shall be fired exclusively on pipeline quality 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. Gas turbine igniters may be fueled with propane or natural gas as part of startup sequence. Use of propane during startup process is limited to 6 grams per second, for a duration of no more than 30 seconds per startup on a design basis. Ignition occurs for the duration of time required to ignite and achieve a sustained flame on natural gas. [District NSR Rule, District Rule 4801, Kern County Rule 407, and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
8. Recommissioning activities are defined as, but not limited to, all testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and LPGC contractors to insure safe and reliable steady state operation of the plant. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Recommissioning periods for this unit shall commence at first firing during major outage maintenance procedures. The recommissioning period shall terminate when the unit has completed performance testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers. [District Rule 2201] Federally Enforceable Through Title V Permit

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10. Permittee shall notify the District at least seven (7) calendar days prior to start, and no more than 7 calendar days after the end, of recommissioning period for this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Startup is defined as the period beginning with turbine light-off, or when the combustion turbine output is reduced to below minimum load (minimum megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the lb/hr and ppmv emission limits in Condition 21) to engage the steam turbine, until the unit again reaches minimum load. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending either with cessation of firing of the gas turbine engine, or when the unit ramps back up after an aborted shutdown and the unit reaches minimum load. Startup durations shall not exceed three hours, except during recommissioning periods for this unit, and shutdowns shall not exceed one hour, per occurrence. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee may inject ammonia during startup when the selective catalytic reduction system is at least 302 degrees F, however ammonia must be injected during startup when the selective catalytic reduction system catalyst temperature exceeds 500 degrees F and selective catalytic reduction system inlet concentrations exceed 2.5 ppmv NOx and as needed during normal operation to meet the NOx emissions limits. Permittee shall monitor and record catalyst temperature during periods of startup. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods. [District Rule 1081] Federally Enforceable Through Title V Permit
14. During startup and/or recommissioning of any gas turbine engines, combined emissions from the four gas turbine engines (S-3412-1, '-2, '-3 and '-4) heat recovery steam generator exhausts shall not exceed the following: NOx (as NO2): 900 lb and CO: 2,500 lb in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
15. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the combustors of this unit shall be tuned to minimize emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
16. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the oxidation catalyst shall be utilized to minimize CO emissions from this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. During recommissioning periods, at the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturer and the construction contractor, the Selective Catalytic Reduction (SCR) system shall be utilized to control NOx whenever gas turbine operations are sufficiently stable and minimum catalyst temperature is achieved. [District Rule 2201] Federally Enforceable Through Title V Permit
18. During recommissioning periods for this unit, emission rates from gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NOx (as NO2): 517.3 lb/hr and CO: 439.6 lb/hr. NOx (as NO2) emission limit is a one hour average. CO emission limit is a three-hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates from the gas turbine engine heat recovery steam generator exhaust, except during startup and/or shutdown of this unit, shall not exceed the following: PM10: 11.0 lb/hr, SOx (as SO2): 3.89 lb/hr, NOx (as NO2): 17.30 lb/hr and 2.5 ppmvd @ 15% O2, VOC (as propane): 2.80 lb/hr and 0.7 ppmvd @ 15% O2, and CO: 31.40 lb/hr and either 10 ppmvd @ 15% O2 at operating loads less than or equal to 221 MW (gross three hour average) or 6 ppmvd @ 15% O2 at operating loads greater than 221 MW (gross three hour average). NOx (as NO2) emission limit is a one hour average. All other emission limits are three hour rolling averages. NOx and CO emission limits shall not apply during recommissioning periods. [District NSR Rule; District Rule 4703, 5.1 and 5.2; and 40 CFR 60.332 and 60.333] Federally Enforceable Through Title V Permit
20. Except during recommissioning periods for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following on days when a startup or shutdown of the unit occurs: PM10: 264.0 lb/day, SOx (as SO2): 91.4 lb/day, NOx (as NO2): 511.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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21. During recommissioning periods, for this unit, emission rates from the gas turbine engine heat recovery steam generator exhaust shall not exceed the following: NO_x (as NO₂): 4,790.0 lb/day, PM₁₀: 264.0 lb/day, SO_x (as SO₂): 91.4 lb/day, VOC: 139.8 lb/day, and CO: 1,873.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Twelve month rolling average emissions from each gas turbine engine heat recovery steam generator exhaust shall not exceed the following PM₁₀: 96,360 lb/year, SO_x (as SO₂): 30,517 lb/year, NO_x (as NO₂): 146,001 lb/year, VOC: 25,063 lb/year, and CO: 217,921 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Ammonia emission rate shall not exceed 10 ppmvd @ 15% O₂ on a twenty four hour rolling average. [District Rule 4102]
24. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O₂ = $((a-(bcx/1,000,000)) \times 1,000,000 / b) \times d$, 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 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. [District Rule 4102]
25. Short term emissions shall be measured to demonstrate compliance with short term emission limits (lb/hr and ppmv @ 15% O₂) annually by District witnessed in situ sampling of exhaust gases 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 for ammonia emissions shall be based on a two-hour or longer average. [District Rule 1081] Federally Enforceable Through Title V Permit
26. Cold start NO_x, and CO mass emissions shall be measured, and measurement of cold start VOC emissions shall be performed for one of the gas turbines engines (S-3412-1, '2, '3, or '4) at least every seven 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
27. The sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rules 1081; 2520, 9.3.2; and 2540] Federally Enforceable Through Title V Permit
28. The sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 3246. [District Rule 2520, 9.3.2 and 40 CFR 60.335(b)] Federally Enforceable Through Title V Permit
29. Permittee shall maintain records of fuel sulfur content monitoring data and records documenting a constant supplier or source of fuel (a substantial change in fuel quality shall be considered a change in fuel supply). Permittee shall submit results of fuel sulfur content monitoring annually to the District. Permittee shall notify the District of any changes in fuel supplier or source within 60 days of such change. [District Rules 1081 and 2540] Federally Enforceable Through Title V Permit
30. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. 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
31. The following test methods shall be used NO_x: EPA Method 7E or 20, CO: EPA method 10 or 10B, O₂: EPA Method 3, 3A, or 20, VOC: EPA method 18, and PM₁₀: EPA method 5 (front half and back half) or EPA methods 201A and 202. Alternative test methods as approved by the District and EPA may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, 6.4; and 40 CFR 60.335] Federally Enforceable Through Title V Permit
32. Source testing for ammonia shall be performed using BAAQMD ST-1B. [District Rule 4102]
33. The permittee shall maintain hourly records of ammonia emission concentrations (ppmv @ 15% O₂) [District Rule 4102]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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34. The permittee shall maintain hourly records of NO_x, and CO emission concentrations (ppmv @ 15% O₂), and hourly, daily, and twelve month rolling average records of NO_x and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by annual VOC source tests. [District NSR Rule] Federally Enforceable Through Title V Permit
35. 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. [District NSR Rule] Federally Enforceable Through Title V Permit
36. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, 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
37. The continuous NO_x and O₂ monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
38. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
39. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
40. 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. Successive quarterly audits shall occur no closer than two months. 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, 6.2] Federally Enforceable Through Title V Permit
41. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
42. Sulfur compound emissions shall not exceed 0.015% by volume at calculated at 15% O₂ (150 ppmv @ 15% O₂) on a dry basis averaged over 15 consecutive minutes. [District Rule 4801, Kern County Rule 407, and 40 CFR 60.333(a)] Federally Enforceable Through Title V Permit
43. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
44. Continuous emission monitors shall meet applicable requirements of 40 CFR 60.13. [District Rule 4703, 5.1 & 6.4 and 40 CFR 60.13] Federally Enforceable Through Title V Permit
45. By two hours after turbine light-off the owner or operator shall not operate the gas turbine under load conditions, excluding shutdown or recommissioning periods for this unit, which results in the measured concentrations exceeding the following limits: 5 ppmv NO_x (as NO₂) @ 15% O₂ or 200 ppmv CO @ 15% O₂. [District Rule 4703, 5.1.2 and 5.2] Federally Enforceable Through Title V Permit
46. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

47. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, recommissioning period, malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), emission measurements, total daily and annual hours of operation, hourly quantity of fuel used, and gross three hour average operating load. [District Rules 1080, 7.0; 2520, 9.3.2; 4703, 6.2; and 40 CFR 60.8(d)] Federally Enforceable Through Title V Permit
48. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Air Pollution Control Equipment/Operation: The Permittee shall continuously operate and maintain the following air pollution controls and operations to minimize emissions at or below the levels specified in Conditions X-E of the PSD permit. The aforementioned "continuous" periods of operation do not include periods of startup, shutdown, and recommissioning, as defined in Section X.E.3, and X.F.1 of the PSD permit, or periods of malfunction as defined in Section IV.B.1 of the PSD permit. The Permittee shall continuously operate Selective Catalytic Reduction (SCR) systems on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 to meet the NO_x emission limits specified in the PSD permit. The Permittee shall maintain an oxidation catalyst system on permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4 for control of CO. [PSD permit (SJ 98-01), X.B] Federally Enforceable Through Title V Permit
50. Continuous Emission Monitoring: Prior to the date of startup and thereafter, the Permittee shall install, maintain, and operate the following Continuous Emissions Monitoring Systems (CEM) on each Combustion Turbine Generator (CTG) set exhaust vent stack: a. A continuous monitoring system to measure stack gas NO_x concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B); and b. A continuous monitoring system to measure stack CO concentrations. The system shall meet EPA monitoring performance specifications (40 CFR 60, Appendix B). [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
51. Continuous Emission Monitoring: The permittee shall install, maintain, and operate a continuously recording fuel gas flow meter on each gas turbine engine. Exhaust gas flow rates shall then be determined from fuel gas flow using EPA Method 19. [PSD permit (SJ 98-01), X.D] Federally Enforceable Through Title V Permit
52. Emission Limits: Emissions from each of the gas turbines (permit units S-3412-1, S-3412-2, S-3412-3, and S-3412-4) shall not exceed the following limits, except during periods of startup, shutdown and recommissioning: a. NO_x (as NO₂): 17.30 lb/hr and 2.5 ppmvd @ 15 percent O₂, based on a 1-hour average; b. 25.30 lb-CO/hr and 6 ppmvd @ 15 percent O₂, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads above 221 MW (gross 3-hour average) or 31.40 lb-CO/hr and 10 ppmvd @ 15 percent O₂, based on a 3-hour average, whenever the combined-cycle combustion turbine is operating at loads at or below 221 MW (gross 3-hour average). [PSD permit (SJ 98-01), X.E.1] Federally Enforceable Through Title V Permit
53. Emission Limits: Emission rates from each gas turbine shall not exceed the following daily and annual limits, including all periods of startup, shutdown and recommissioning, except NO_x daily limits may be exceeded during recommissioning periods: NO_x (as NO₂): 511.4 lb/day, 73.0 tons/yr; CO: 1,873.0 lb/day, 109.0 tons/yr; SO₂: 91.4 lb/day, 15.3 tons/yr. The annual limit is a 12-month rolling average. [PSD permit (SJ 98-01), X.E.2] Federally Enforceable Through Title V Permit
54. Emission Limits: The following definitions apply to the PSD permit: a. Startup of the combustion turbine is defined as the period beginning with combustion turbine light-off, until the unit reaches minimum load; b. Startup of the steam turbine is defined as the period when the combustion turbine output is reduced to below minimum load, in order to engage the steam turbine, until the unit again reaches minimum load; c. Shutdown is defined as the period beginning with initiation of combustion turbine shutdown sequence and ending either with the cessation of firing of the combustion turbine engine, or when the unit ramps back up after an aborted shutdown, until the unit reaches minimum load; d. Minimum load is defined as the minimum combustion turbine megawatt output at which the combustion turbine achieves stable operation and maintains compliance with the ppmv emission limits in Condition X.E.1 of the PSD permit. [PSD permit (SJ 98-01), X.E.3] Federally Enforceable Through Title V Permit

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

55. Emission Limits: Each startup, whether of the combustion or steam turbine, shall not exceed three hours per occurrence. Each shutdown shall not exceed one hour per occurrence. [PSD permit (SJ 98-01), X.E.4] Federally Enforceable Through Title V Permit
56. Recommissioning Periods: Recommissioning is defined as the period following an inspection, maintenance, repair and/or overhaul outage where the source conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. A recommissioning period for any single outage shall not exceed 60 cumulative days of combustion turbine firing. [PSD permit (SJ 98-01), X.F.1] Federally Enforceable Through Title V Permit
57. Recommissioning Periods: Prior to commencing a recommissioning period, permittee shall perform a PSD applicability determination for the action(s) triggering the recommissioning period. [PSD permit (SJ 98-01), X.F.2] Federally Enforceable Through Title V Permit
58. Recommissioning Periods: Permittee shall maintain a copy of each PSD applicability determination on site. In addition, if the action(s) triggering the recommissioning period include(s) the replacement of parts that could affect capacity or emissions, or an overhaul outage, then the permittee shall provide a copy of such determination to EPA prior to the start of the recommissioning period. [PSD permit (SJ 98-01), X.F.3] Federally Enforceable Through Title V Permit
59. Recommissioning Periods: Emission rates from each combustion turbine shall not exceed the following limits during a recommissioning period: 439.6 lbs-CO per hr; 517.3 lbs-NO_x per hr; 4,790.0 lbs-NO_x per day; 4,443.0 lbs-CO per recommissioning event; 8,545.0 lbs-NO_x per recommissioning event. [PSD permit (SJ 98-01), X.F.4] Federally Enforceable Through Title V Permit
60. Recommissioning Periods: The permittee shall maintain the following records for each recommissioning period: a. The number of days the combustion turbine is fired; b. Hourly and daily emissions, in lbs/hr and lbs/day, of NO_x and CO emitted; c. Total emissions of NO_x and CO emitted during the recommissioning period; d. Documentation of the testing and tuning activities which occurred during the recommissioning period. [PSD permit (SJ 98-01), X.F.5] Federally Enforceable Through Title V Permit
61. Recommissioning Periods: Pursuant to 40 CFR 60.8, within 30 days after the end of a recommissioning period, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NO_x and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. Upon written request and adequate justification from the Permittee, EPA may waive a performance test after a recommissioning period. [PSD permit (SJ 98-01), X.F.6] Federally Enforceable Through Title V Permit
62. Performance Tests: Pursuant to 40 CFR 60.8, within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment (as defined in 40 CFR 60.2), and at such other times as specified by the Regional Administrator, the owner/operator shall conduct or cause to be conducted performance tests (as described in 40 CFR 60.8) for NO_x and CO and furnish the EPA (Attn: AIR-5) a written report of the results of such test. The tests for NO_x and CO shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. Upon written request (Attn: AIR-5) from the Permittee, EPA may approve the conducting of performance tests at a lower specified production rate. After initial performance test and upon written request and adequate justification from the Permittee, EPA may waive a specified annual test for the facility. [PSD permit (SJ 98-01), X.G.1] Federally Enforceable Through Title V Permit
63. Performance Tests: Performance tests for the emissions of CO and NO_x shall be conducted and the results reported in accordance with the test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The following test methods, or alternatives approved by EPA, shall be used: a. Performance tests of the emissions of CO shall be conducted using EPA Methods 1-4 and 10; b. Performance tests of the emissions of NO_x shall be conducted using EPA Methods 1-4 and 7E; c. Natural gas sulfur content shall be tested according to ASTM D3246. The EPA (Attn: AIR-5) shall be notified in writing at least 30 days prior to such test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. Such prior approval shall minimize the possibility of EPA rejection of test results for procedural deficiencies. In lieu of the above mentioned test methods, equivalent methods may be used with prior written approval from EPA. [PSD permit (SJ 98-01), X.G] 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.

64. Performance Tests: For performance test purposes, sampling ports, platforms, and access shall be provided by the Permittee on the exhaust stack in accordance with 40 CFR 60.8(e). [PSD permit (SJ 98-01), X.G.4] Federally Enforceable Through Title V Permit
65. Recordkeeping and Reporting: A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices, performance and all other information required by 40 CFR 60 or 75 recorded in a permanent form suitable for inspection. The file shall be retained for at least five (5) years following the date of such measurement, maintenance, reports, and records. [PSD permit (SJ 98-01), X.H.1] Federally Enforceable Through Title V Permit
66. Recordkeeping and Reporting: The Permittee shall maintain an operating log for each combustion turbine, which contains at a minimum, the following information: the start and finish times for all startup, shutdown and recommissioning periods. [PSD permit (SJ 98-01), X.H.3] Federally Enforceable Through Title V Permit
67. Recordkeeping and Reporting: The permittee shall submit a written report of all excess emissions to EPA (Attn: AIR-5) for every calendar quarter. The report shall include the following: a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions; b. Specific identification of each period of excess emissions that occurs during startups, shutdown, recommissioning, and malfunctions of the engine exhaust systems. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported; c. The date and time identifying each period during which a CEMS was inoperative, repaired, or adjusted, except for zero and span checks, and the nature of the system repairs or adjustments; d. When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report; e. Excess emissions shall be defined as any 1-hour period during which the average emissions of NO_x, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.a of the PSD permit; f. Excess emissions shall be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM, exceeds the maximum emissions limits set forth in Condition X.E.1.b of the PSD permit. [PSD permit (SJ 98-01), X.H.4] Federally Enforceable Through Title V Permit
68. Recordkeeping and Reporting: The facility is subject to the recordkeeping and reporting requirements of the applicable New Source Performance Standards (NSPS) - 40 CFR Part 60, as described in this permit. [PSD permit (SJ 98-01), X.H.5] Federally Enforceable Through Title V Permit
69. New Source Performance Standards: The facility's combustion turbines are subject to the federal New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart GG, as well as the General Provisions of Subpart A. The owner/operator shall meet the applicable requirements of the aforementioned NSPS Subparts. [PSD permit (SJ 98-01), X.I] Federally Enforceable Through Title V Permit
70. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rule 4801 and Kern County Rule 407 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
71. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332, 60.333 (a) and (b); 40 CFR 60.334(a), (b)(2), (c), and 40 CFR 60.335(b); District Rule 4703 (as amended 9/20/07), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
72. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

73. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
74. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
75. Gas turbine engine exhaust shall be equipped with an additional continuous NOx analyzer located upstream of the SCR unit for purposes of monitoring ammonia slip (Ammonia Slip NOx Analyzer). This analyzer shall be capable of monitoring NOx concentration at this location during startups and shutdowns as well as normal operating conditions. [District Rule 4102]
76. The Ammonia Slip NOx Analyzer shall conform to the specifications of Section 6.0, Performance Specification 2, 40 CFR 60, Appendix B. [District Rule 4102]
77. Calibration drift (CD) assessment for the Ammonia Slip NOx Analyzer shall be performed in accordance with requirements specified in section 4 of Appendix F to 40 CFR Part 60. [District Rule 4102]
78. A Cylinder Gas Audit (CGA) of the Ammonia Slip NOx Analyzer shall be performed each quarter in accordance with the procedures of specified in section 5 of Appendix F to 40 CFR Part 60. [District Rule 4102]
79. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by this permit, the Ammonia Slip NOx Analyzer shall be in continuous operation. [District Rule 4102]
80. The Ammonia Slip NOx Analyzer shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [District Rule 4102]
81. Emission data from the Ammonia Slip NOx Analyzer, including the calculated ammonia slip, shall be obtained for at least 18 hours in at least 22 out of 30 successive gas turbine operating days. [District Rule 4102]
82. Notification and record keeping for the Ammonia Slip NOx Analyzer shall be in accordance with the requirements specified in 40 CFR 60.7. [District Rule 4102]
83. An excess ammonia emissions and monitoring system performance report for the Ammonia Slip NOx Analyzer, in accordance with the requirements specified in 40 CFR 60.7, shall be submitted to the APCO for each calendar quarter. [District Rule 4102]
84. Although specific sections of 40 CFR 60 are referenced for convenience in permit conditions for the Ammonia Slip NOx Analyzer, the equipment is not subject to federal enforcement or other federal monitoring, reporting or recordkeeping requirements. [District Rule 4102]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-5-5

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

COOLING TOWER #1 WITH 8 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 0.0006%. [District NSR Rule] Federally Enforceable Through Title V Permit
3. PM10 emission rate shall not exceed 20.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Daily PM10 emissions shall be calculated as follows: $PM10 \text{ lb/day} = \text{cooling water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * 0.5$. [District NSR Rule] Federally Enforceable Through Title V Permit
5. PM10 emissions shall be determined by quarterly cooling water sample analysis. If any quarterly testing results indicate noncompliance, weekly testing shall be conducted until eight (8) consecutive weeks of testing have demonstrated compliance, at which time quarterly sampling may resume. [District NSR Rule and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain records of cooling water sample analysis. All records shall be maintained for at least 5 years and shall be made available to the District upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4202 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] 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-3412-6-5

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

COOLING TOWER #2 WITH 8 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 0.0006%. [District NSR Rule] Federally Enforceable Through Title V Permit
3. PM10 emission rate shall not exceed 20.0 lb/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Daily PM10 emissions shall be calculated as follows: $PM10 \text{ lb/day} = \text{cooling water recirculation rate} * \text{total dissolved solids concentration in the blowdown water} * \text{design drift rate} * 0.5$. [District NSR Rule] Federally Enforceable Through Title V Permit
5. PM10 emissions shall be determined by quarterly cooling water sample analysis. If any quarterly testing results indicate noncompliance, weekly testing shall be conducted until eight (8) consecutive weeks of testing have demonstrated compliance, at which time quarterly sampling may resume. [District NSR Rule and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain records of cooling water sample analysis. All records shall be maintained for at least 5 years and shall be made available to the District upon request. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4201 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
8. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4202 (as amended 12/17/92). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] 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-3412-8-2

EXPIRATION DATE: 01/31/2010

SECTION: NE27 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.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-3412-9-2

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.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-3412-10-2

EXPIRATION DATE: 01/31/2010

SECTION: NE27 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.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-3412-11-2

EXPIRATION DATE: 01/31/2010

SECTION: NE27 **TOWNSHIP:** 30S **RANGE:** 22E

EQUIPMENT DESCRIPTION:

587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency unless UL certification would be voided. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
6. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed 20 hours per calendar year. [District Rule 4702, 4.2.1 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the emergency generator sets for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the 12 month rolling operating hours of the emergency generator set. [PSD permit (SJ 98-01), X.H.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-3412-13-1

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Emission rates shall not exceed any of the following: PM₁₀: 0.007 lb/MMBTU; NO_x (as NO₂): 12 ppmv @ 3% O₂; VOC - 30 ppmv @ 3% O₂; or CO: 50 ppmv @ 3% O₂. [District NSR Rule and District Rules 4301, 5.2; 4305, 5.1; and 4306, 5.1] Federally Enforceable Through Title V Permit
3. Boiler natural gas consumption shall not exceed 148.8 MMBtu/day. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall maintain daily records of boiler natural gas consumption (MMBtu/day). [District NSR Rule and District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
5. Boiler shall be fired exclusively on pipeline quality 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; District Rule 4301, 5.2.1; District Rule 4801; Kern County Rule 407; and PSD permit (SJ 98-01), X.C.1] Federally Enforceable Through Title V Permit
6. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit
7. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100 (amended December 17, 1992), the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit

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

8. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit
9. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 5.4.2 and 4306, 5.4] Federally Enforceable Through Title V Permit
10. Source testing shall be by District witnessed, or authorized. Sample collection shall be by an ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
11. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4305 (amended August 21, 2003). [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit
12. Source testing to measure natural gas-combustion NO_x and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District NSR Rule and District Rules 4305, 6.3 and 4306, 6.3] Federally Enforceable Through Title V Permit
13. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit
14. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
15. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
16. CO emissions for source test purposes shall be determined using EPA Method 10 or EPA Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
17. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
18. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit
19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
20. If the unit is fired on natural gas certified by the supplier to have a sulfur content of 0.75 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

21. If the unit is not fired on natural gas certified by the supplier to have a sulfur content 0.75 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the unit shall be determined using ASTM method D 3246 or double GC for H₂S and mercaptans. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
22. If the unit is not fired on natural gas certified by the supplier to have a sulfur content 0.75 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 2520, 9.3.2; 4305, 6.2.1; and 4306, 6.2.1] Federally Enforceable Through Title V Permit
24. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 2520, 9.4.2; 4305, 6.1; and 4306, 6.1] Federally Enforceable Through Title V Permit
26. Emission Limits: Emissions from the boiler servicing the wastewater treatment system shall not exceed the following limits: a) NO_x (as NO₂): 0.103 lb/hr; b) CO: 0.261 lb/hr; c) SO₂: 0.012 lb/hr. [PSD permit (SJ 98-01), X.E.5] Federally Enforceable Through Title V Permit
27. Performance Tests: Compliance with the NO_x and CO emission limits in Conditions of the PSD permit for the boiler servicing the wastewater treatment system shall be demonstrated within 90 days of initial startup and subsequently not less than once every 12 months, except as provided below. [PSD permit (SJ 98-01), X.G.5] Federally Enforceable Through Title V Permit
28. Performance Tests: Source testing to demonstrate compliance with the NO_x and CO emission limits in Conditions of the PSD permit for the boiler servicing the wastewater treatment system shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. If the Permittee fails any compliance demonstration for the NO_x and CO emission limits in Conditions of this permit when testing not less than every 36 months, then compliance with these limits shall be demonstrated not less than once every 12 months. [PSD permit (SJ 98-01), X.G.6] Federally Enforceable Through Title V Permit
29. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
30. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the following applicable requirements: District Rules 4201 (as amended 12/17/92), 4301 (as amended 12/17/92), and 4305 (as amended 8/21/03). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
31. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance with the applicable requirements of District Rule 1081 (as amended 12/16/93). A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
32. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO_x emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NO_x emission limit listed in Rule 4320. [District Rule 4320]
33. On and after July 1, 2012, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]

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

34. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-3412-14-2

EXPIRATION DATE: 01/31/2010

SECTION: NE27 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:

240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE
POWERING A FIREWATER PUMP

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
3. The exhaust stack shall not be fitted with a rain cap or similar device which would impede vertical exhaust flow. [District Rule 4102]
4. NOx emissions shall not exceed 4.2 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The PM10 emissions rate shall not exceed 0.14 g/bhp-hr based on US EPA certification using ISO 8178 test procedure. [District NSR Rule] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 4.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. This engine shall be operated only for maintenance, testing, and 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. [District Rule 4702, 4.3 and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, 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. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 4702, 6.2 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit for this unit shall be deemed compliance the applicable requirements of District Rule 4801 and Kern County Rule 407. A permit shield from these requirements is granted to this unit. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. Air Pollution Control Equipment/Operation: The Permittee shall use good combustion control operation on the diesel fire pump engine for control of NOx and CO emissions. [PSD permit (SJ 98-01), X.B.4] Federally Enforceable Through Title V Permit
14. Recordkeeping and Reporting: The Permittee shall record and maintain records of the weekly operating hours and the 12 month rolling operating hours of the diesel fire pump. [PSD permit (SJ 98-01), X.H.2] Federally Enforceable Through Title V Permit

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

Attachment C

DETAILED FACILITY LIST

Detailed Facility Report

For Facility=3412

Sorted by Facility Name and Permit Number

LA PALOMA GENERATING CO LLC 1760 W SKYLINE ROAD MCKITTRICK, CA 93251	FAC # STATUS: TELEPHONE:	S 3412 A 6617626005	TYPE: TOXIC ID:	TitleV	EXPIRE ON: AREA: INSP. DATE:	01/31/2010 3 / 05/12
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PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
S-3412-1-13	262,000 KW POWER GENERATION UNIT	3020-08B H	1	13,208.00	13,208.00	A	ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #1 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
S-3412-2-14	262,000 KW POWER GENERATION UNIT	3020-08B H	1	13,208.00	13,208.00	A	ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #2 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
S-3412-3-17	262,000 KW	3020-08B H	1	13,208.00	13,208.00	A	ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #3 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
S-3412-4-9	262,000 KW POWER GENERATION UNIT	3020-08B H	1	13,208.00	13,208.00	A	ABB GT-24 NATURAL GAS FIRED COMBINED CYCLE GAS TURBINE ENGINE/ELECTRICAL GENERATOR #4 WITH DRY LOW NOX COMBUSTORS, STEAM POWER AUGMENTATION, OXIDATION CATALYST, SELECTIVE CATALYTIC REDUCTION, STEAM TURBINE, AND ELECTRICAL GENERATOR (262 MW NOMINAL RATING)
S-3412-5-5	part of elec gen process, no add'l fees	999-99	1	0.00	0.00	A	COOLING TOWER #1 WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR
S-3412-6-5	part of elec gen process, no add'l fees	999-99	1	0.00	0.00	A	COOLING TOWER #2 WITH 8 CELLS AND HIGH EFFICIENCY DRIFT ELIMINATOR
S-3412-8-2	no applicable fee	999-99	1	0.00	0.00	A	587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#1)
S-3412-9-2	no applicable fee	999-99	1	0.00	0.00	A	587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#2)
S-3412-10-2	no applicable fee	999-99	1	0.00	0.00	A	587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#3)
S-3412-11-2	no applicable fee	999-99	1	0.00	0.00	A	587 BHP CATERPILLAR MODEL #3406 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ELECTRICAL GENERATOR (#4)
S-3412-13-1	part of elec gen process, no add'l fees	999-99	1	0.00	0.00	A	6.4 MMBTU/HR CLAYTON MODEL EG-154-1 LNB NATURAL GAS FIRED BOILER
S-3412-14-2	240 bhp IC engine	3020-10 C	1	240.00	240.00	A	240 BHP CLARKE-DETROIT DIESEL-ALLISON MODEL #JU6H-UF60 DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FIREWATER PUMP

Number of Facilities Reported: 1

Attachment D

Revised PSD Permit

Attachment E

**Facility Comments and
District Responses**